ORDER NO. ACED9601451
C1

Service Manual

AUTOMOTIVE CONSUMER ELECTRONICS

CQ-R525EUC/R520EUC

Cassette Receiver with CD Changer Control (CQ-R525EUC)
Cassette Receiver (CQ-R520EUC)

<CQ-R525EUC>

Specifications*

General

Power Supply	: 12V DC (11V-16V) Test Voltage 14.4V, Negative ground
Maximum Power Output	: 35 W × 4 channels at 400Hz, Volume Control maximum (CQ-R525EUC) 25 W × 4 channels at 400Hz, Volume Control maximum (CQ-R520EUC)
Power Output	: 15W per channel into 4 ohms, 40 to 30,000Hz, at 3% THD (CQ-R525EUC) 11W per channel into 4 ohms, 40 to 30,000Hz, at 3% THD (CQ-R520EUC)
Tone Action	: Bass; ±12dB at 100Hz Treble; ±12dB at 10kHz
Current Consumption	: Less than 2 A (tape mode, 0.5W 4-speaker)
Speaker Impedance	: 4 Ω (4-8Ω acceptable)

AM RADIO

Frequency Range	: 530 - 1,710kHz
Usable Sensitivity	: 28 dB/ μV (25μV/ S/N 20dB)

FM STEREO RADIO

Frequency Range	: 87.9 - 107.9MHz
Usable Sensitivity	: 13.2 dBf. (1.25μV/ 75Ω)
50 dB Quieting Sensitivity	: 15.2 dBf. (1.6μV/ 75Ω)
Frequency Response	: 30 to 15,000Hz ±3dB
Capture Ratio	: 1.5dB
Alternate Channel Selectivity: 75dB	
Stereo Separation	: 35dB at 1,000Hz
Image Response Ratio	: 65 dB
IF Response Ratio	: 100 dB
Signal / Noise Ratio	: 70 dB

TAPE PLAYER

Reproduction System	: 4-track, 2-program stereo
Tape Speed	: 1-7/8"/sec (4.76cm / sec)
FF / REW Time	: Less than 110 sec (C-60)
Frequency Response	: 35 - 14,000Hz±3dB (normal) 35 - 17,000Hz±3dB (metal)
Wow and Flutter	: 0.12% (WRMS)
Signal-Noise Ratio	: 52dB
Dimensions**	: 7"×1-15/16"×5-7/8" (178×50×150mm)
Weight**	: 3 lbs. 8 oz (1.6kg)

* Specifications and the design are subject to possible modification without notice due to improvements.
** Dimensions and weight shown are approximate.
• Above specifications comply with EIA standards.

Panasonic®

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⚠WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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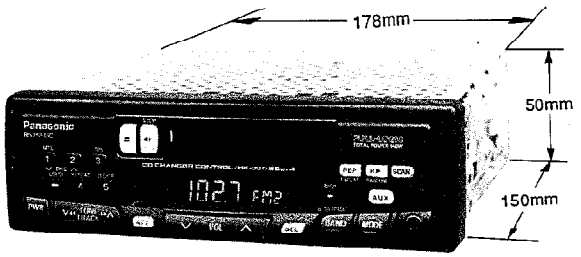
FEATURES

- 5-FM1/ FM2/ FM3, 5-AM presets with preset scan.
- CD changer control. (CQ-R525EUC only)
- Clock function.
- Power amplifier 35W×4.(CQ-R525EUC)
- Power amplifier 25W×4.(CQ-R520EUC)

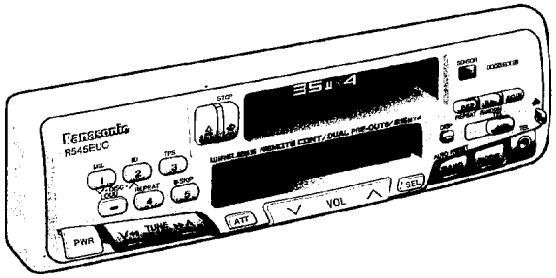
FUSE

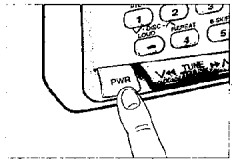
Be sure to use a fuse of the specified rating (10A) when replacing a blown fuse. Fuses with higher capacity ratings, use of any substitute, or connection without a fuse may result in a fire hazard or damage to the unit.

DIMENSIONS



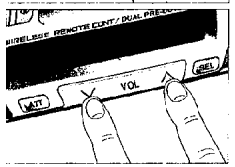
Power and Sound Controls





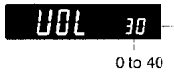
Power

If the car is not already running, turn the key in the ignition until the accessory indicator lights.
Press PWR button to switch on the power.



Volume

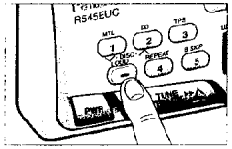
- Press "∧" or "∨" to increase or decrease volume.



Volume Level

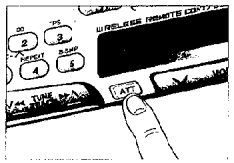
0 to 40

- Press "∧" or "∨" for more than a half second to change numeric levels on the display rapidly.



Tone Enhancement

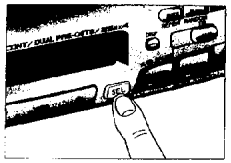
Press LOUD to enhance bass and treble tones when listening at low or mecium volume. Press LOUD again to deactivate.

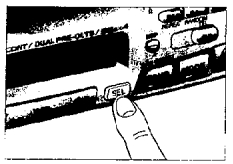


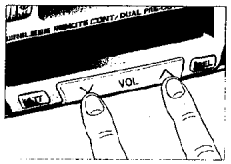
Attenuator

- Press ATT. Volume will decrease tc about 1/10 of its previous level.
- Press ATT again to deactivate when listening at normal volume.

Note: This unit is equipped with an anti-volume-blast circuit which serves as an automatic volume level adjuster so that you will not be deafened with sudden loud volume.
This system operates as follows. When PWR is switched on, the volume level is low. After that, the volume level gradually returns to its previous level prior to switching off the unit.







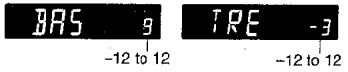
Changing Audio Modes

Press SEL to switch the audio mode in the following order.

VOLUME ➡ BASS ➡ TREBLE
⬆ ⬇
FADER ⬅ BALANCE

Bass and Treble

- Press SEL to select the BASS (TREBLE) mode. Press "∧" or "∨" to increase or decrease the bass/treble response.



–12 to 12 –12 to 12

- Press "∧" or "∨" for more than a half second to change numeric levels on the display rapidly.

Balance

- Press SEL to select the BALANCE mode. Press "∧" or "∨" to shift the sound volume to the right or left speakers.

or L 1 to 15 Balance Center

- Press "∧" or "∨" for more than a half second to change numeric levels on the display rapidly.

Fader

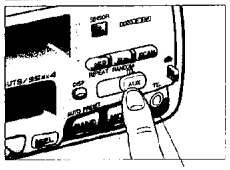
- Press SEL to select the FADER mode. Press "∧" or "∨" to shift the sound volume to the front or rear speakers.

or R 1 to 15 Fader Center

- Press "∧" or "∨" for more than a half second to change numeric levels on the display rapidly

Note: When a control mode (BAS/TRE/BAL/FAd) is selected but no operation is made within 5 seconds, the display will return to the normal operation (volume adjustment) mode. In such a case, press SEL again to select the next control mode.

Power and Sound Controls continued



AUX Jack

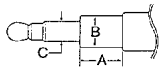
Selecting Auxiliary Source

① Press AUX to select AUX input mode.

② Connect the auxiliary equipment (an optional DCC player deck or any other appropriate equipment) to the AUX Jack.

Canceling AUX Input mode

Press AUX or MODE again while the AUX mode is operated, the mode will return to the previous mode. Or insert a cassette tape, and the mode will change to TAPE mode.

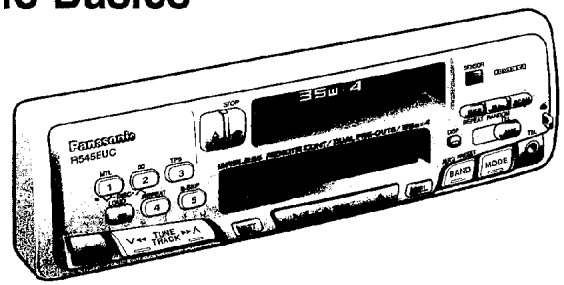


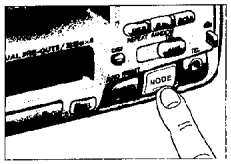
A-MIN1/2" LONG (12mm)
B-MAX2/5" DIA. (10mm)
C-MIN 1/8" DIA. (3.5mm)

Caution:

In order to insert the plug into the "AUX" Jack properly, make sure to use the correct size of the stereo plug shown on the left.

Radio Basics

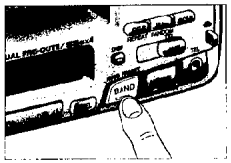




Change to the tuner mode

Press MODE to switch the operation mode in the following order.

TUNER ➡ TAPE ➡ CD Changer Control (When connecting CD Changer)

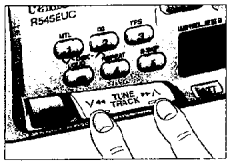


Selecting a Band

Press BAND to select the bands in the following order.

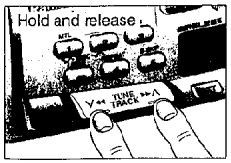
FM1 ➡ FM2 ➡ FM3 ➡ AM

"ST" indicator lights if the station is broadcasting in stereo.



Manual Tuning

Press "∧TUNE" or "∨TUNE" to move to a higher or lower frequency.



Seek Tuning

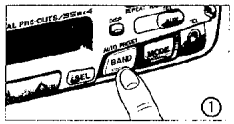
Press and hold "∧TUNE" or "∨TUNE" for more than a half second, then release. The radio automatically stops on the next station.

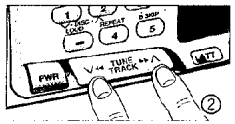
Radio Basics continued

Preset Station Setting

Up to 20 stations can be preset in the station memory as follows:

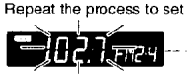
FM1	FM2	FM3	AM
5 stations	5 stations	5 stations	5 stations



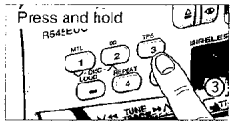


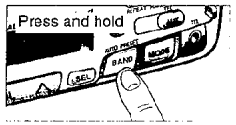
Manual Station Preset

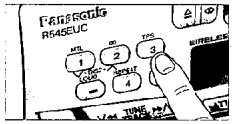
① Press BAND to select a desired band.
② Use manual or seek tuning to find a station that you want to program into memory.
③ Press and hold one of the station selector buttons 1 through 5 until the display blinks. The memory is now set for that button on the band you have selected.
Repeat the process to set other stations for the FM1 to AM bands.



Note: You can change the memory setting by repeating the above procedure.







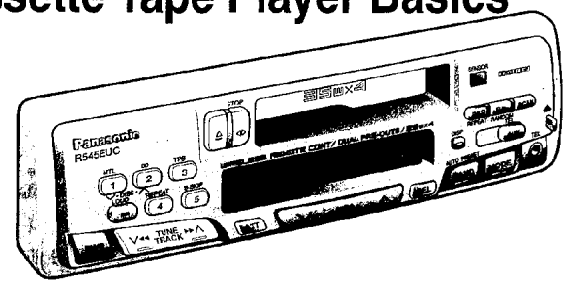
Auto Station Preset

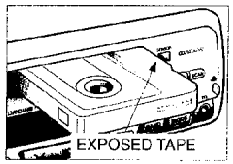
Select a band and press and hold AUTO PRESET for more than 2 seconds.

- The five strongest available stations will be automatically set in memory on preset buttons 1 through 5.
- Once set, the preset stations are sequentially scanned for 5 seconds.
- Press the appropriate preset button for the station you want to hear.

CAUTION: For safety reasons, do not attempt to program while driving.

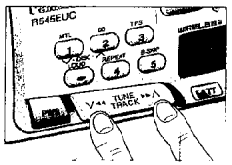
Cassette Tape Player Basics





Loading a Cassette

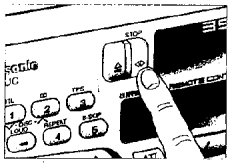
Insert the cassette with the exposed tape side facing to the right. Gently push the cassette in until the mechanism captures it, the cassette is loaded in place and playback starts.



Rewind and Fast Forward

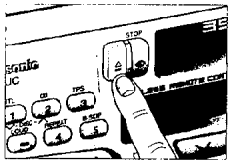
Press either ◄◄ (REW) to rewind or ►► (FF) to fast forward the tape.

To stop rewind or fast forward, press ◄► (STOP).
If you rewind the tape fully, it will play on the same program side again.
If you fast forward to the end, play will resume from the beginning of the other side of the tape.



Changing Sides

Press ◄► (STOP) to switch to the program on the other side of the tape. The display changes to indicate which program is playing.



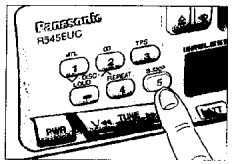
Ejecting the Tape

Press ⏏ and the cassette will eject for removal, and the previous mode of operation will be resumed.

Notes:

- If power is switched off before ⏏ is pressed, the cassette will not eject. Switch on the power again and press ⏏ to eject the cassette.
- The cassette tape should always be removed from the cassette slot when not in use.

Cassette Tape Player Basics continued



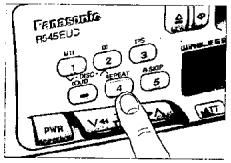
Blank Skip

Press 5 (B-SKIP) to skip long unrecorded portions on the tape.

This is most convenient if you quickly want to skip the remaining unrecorded portions at the end of the tape and fast forward to the beginning of the first music on the reverse side of the tape.

Notes:

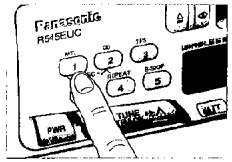
- "B-SKIP" indicator lights. However, the blank skip operation will not work if REPEAT is on. The repeat function has priority over that of the blank skip function.
- Also the blank skip operation will not work when the unrecorded portion of the tape is less than 15 seconds.



Repeat Play

Press 4 (REPEAT) to repeat the same music you are now listening to.

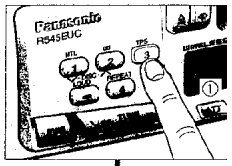
After finishing the music just listened to, the rewind starts automatically until the beginning of music, and the same music starts playing again. To turn it off, press 4 (REPEAT) again.

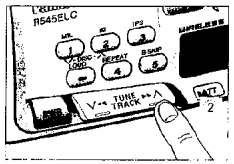


Metal Tape Mode

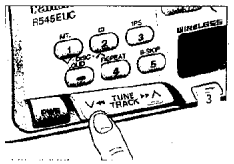
Press 1 (MTL) when playing metal or chromium dioxide (CrO_2) tapes. To turn it off, press MTL again.

Note: Playing non-metal tapes in MTL mode causes high frequency imbalance, which affects tone quality.





or



TPS Operation (Tape Program Search)

- Press 3(TPS) to activate the tape program search mode.

From the current selection, decide which program you want to select. Now, press "▶▶" several times forward (up to 9 programs) or press "◀◀" several times backward (up to 8) to select the corresponding program number.

(Fast forward:) 1 ----------▶ 9

(Rewind:) 0 ----------▶ 8

EX1. To select the current program again press 3 (TPS), and press "◀◀" once.

EX2. To select the 1st program backward of the current selection, press 3(TPS) once, and press "◀◀" two times.

EX3. To select the next program, press 3 (TPS) and press "▶▶" once.

EX4. To select the 3rd program forward of the current selection, press 3 (TPS) once, and press "▶▶" three times.

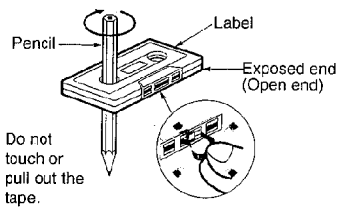
- To turn it off, press 3 (TPS) again.

Note:
The TPS mode may not work correctly in the following cases. This, however, does not mean that the unit is defective.

- There is an interval less than 4 seconds or having a high level of noise or hum between programs.
- There is particularly low-level passage during the program.

❑ Notes on Cassette Tapes

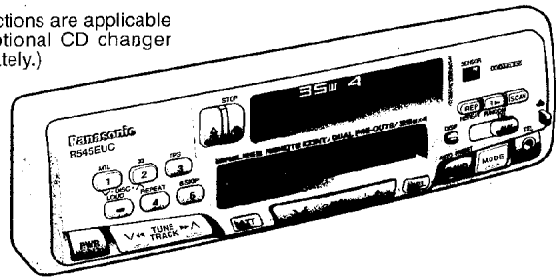
Tape Slack:
Use a pencil or similar object to take up the slack as shown. If a loose tape is used, this may result in the tape becoming tangled in the rotating parts of the unit.

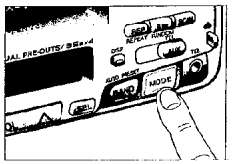


CD Changer Basics

<Only for CQ-R525EUC>

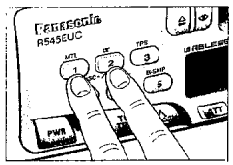
Note:
CD changer functions are applicable to units with optional CD changer unit (sold separately.)





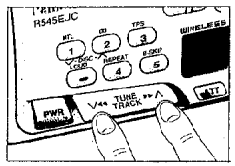
To changer mode

While a disc magazine inserted in the CD changer, press MODE.
Play starts from first track.



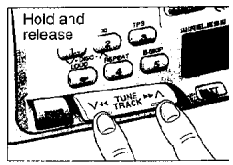
Selecting a Disc

Press "DISC-^" or "v-DISC" to select discs in ascending or descending order.



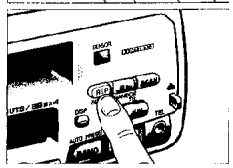
Selecting a Track

Press "TRACK ▶▶" once to go to the next track. Press repeatedly to step forward through all the tracks.
Press "◀◀ TRACK" once to play from the beginning of the current track. Press twice to play the previous track. Press repeatedly to step backward through all the tracks



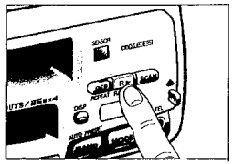
Searching a Track

Press and hold "TRACK ▶▶" or "◀◀ TRACK" for more than a half second to activate fast forward or reverse through a track. Release "TRACK ▶▶" or "◀◀ TRACK" to resume the normal CD play from that position.



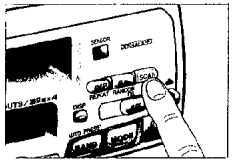
Repeating a Track

Press REP to repeat the current selection. "REPEAT" indicator lights. The current selection continues to repeat until you press REP again.



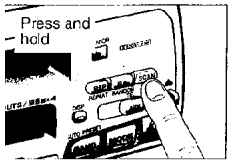
Random Selection

Press R▶ to random selection of music is played from all available CDs."RANDOM" indicator lights.
To turn it off, press R▶ again.



Scanning Tracks

Press SCAN. The track number blinks and the first 10 seconds of each track on the discs play in sequence.
To stop scanning and continue with the current track, press SCAN again.



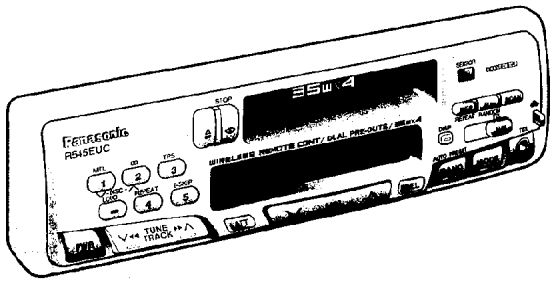
Scanning Discs

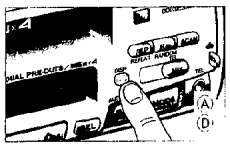
Press and hold SCAN for more than 2 seconds. The 1st track of all the discs in the magazine is played for 10 seconds each. Also, Disc Number blinks at the same time. To stop the current play of the disc scanning, press and hold SCAN for more than 2 seconds again.

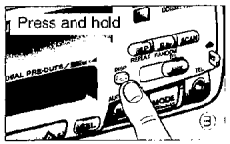
❑ Error Display Messages

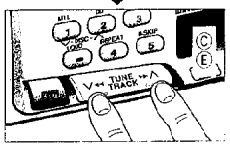
[redacted]	Displays when the compact disc is dirty or upside down. Selects the next available compact disc.
[redacted]	Displays when compact disc is scratched. Selects next available compact disc.
[redacted]	Displays when the compact disc stops operating for some reason. Please turn off the car engine (ACC off) and remove the fuse from yellow lead for 1 minute. Then reinstall the fuse.
[redacted]	Displays when there is no disc in the magazine.

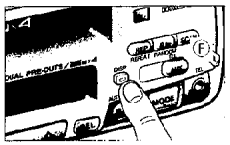
Clock Basics (The clock system is 12-hours.)

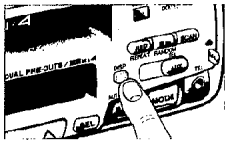












Initial Time Setting

A Press DISP "AdJ" is displayed.

B Press and hold DISP again for more than 2 seconds. "12" blinks indicating the time setting mode is activated.

C To set hours, press "∨TUNE" or "TUNE∧".

D Press DISP again for minute setting.

E To set minutes, press "∨TUNE" or "TUNE∧".

Hold "∧" or "∨" to change numbers rapidly.

F When you have set the time, press DISP.

Resetting the Time

When you want to reset the time, press and hold DISP for more than 2 seconds to activate the time setting mode. Then, repeat step C to F above.

Selecting the Clock Display

Press DISP for clock display.

Press DISP once again the current audio display mode resumes.

Installation Guide

⚠ WARNING

This installation information is designed for experienced installers and is not intended for non-technical individuals. It does not contain warnings or cautions of potential dangers in attempting to install this product.

Any attempt to install this product in a motor vehicle by anyone other than qualified installer could cause damage to the electrical system and could result in serious personal injury or death.

❑ Overview

This equipment should be installed by a professional. However, if you plan to install this unit yourself, your first step is to decide where to install it. The instructions in these pages will guide you through the remaining steps: (Please refer to "WARNING" statement above).

- Identify and abel the vehicle wires
- Connect the vehicle wires to the wires of the power connector
- Install the unit in the dash
- Check the operation of the unit

If you do enccunter problems, please consult your nearest professional installer.

CAUTION: This unit will operate with a 12 vot DC negative ground auto battery system only. Do not attempt to use it in any other system. Doing so could cause serious damage.

Before you begin installation, look for the following items included in the packing with your unit.

- **Warranty Card** ..... Fill this out promptly
- **MSC (in Canada: Panasonic) Servicenter Directory** ..... Keep for future reference in case the unit needs servicing
- **Installation Hardware** ..... Needed for in-dash installation

❑ Installation Hardware

No.	Item	Diagram	Qty
①	Mounting Collar		1
②	Plain Washer (5 mmϕ)		2
③	Spring Washer (5 mmϕ)		2
④	Hex. Nut (5 mmϕ)		2
⑤	Rear Support Strap		1
⑥	Hex. Bolt (5 mmϕ x 25 mm)		1
⑦	Toothed Lock Washer (5 mmϕ)		1
⑧	Mounting Bolt (5 mmϕ)		1
⑨	Power Connector		1
⑩	Removable Face Plate Case (Only for CQ-R525EUC)		1

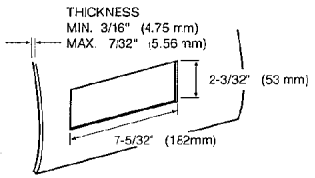
Installation Guide continued

❑ Required Tools

You'll need a screwdriver, a 1.5 volt AA battery, and the following:

12 V DC TEST BULB | ELECTRICAL TAPE | SIDE-CUT PLIERS

❑ Dashboard Specifications



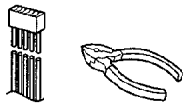
❑ Identify All Leads

The first step in installation is to identify all the vehicle wires you'll use when hooking up your sound system.
As you identify each wire, we suggest that you label it using masking tape and a permanent marker. This will help avoid confusion when making connections later.

Note: Do not connect the power connector to the stereo unit until you have made all connections. If there are no plastic caps on the stereo hooking wires, insulate all exposed leads with electrical tape until you are ready to use them. Identify the leads in the following order.

Power Lead
If your vehicle has a radio or is pre-wired for one :

Cut the connector wires one at a time from the plug (leaving the leads as long as possible) so that you can work with individual leads.



Turn the ignition on to the accessory position, and ground one lead of the test bulb to the chassis.

Touch the other lead of the test bulb to each of the exposed wires from the cut radio connector plug. Touch one wire at a time until you find the outlet that causes the test bulb to light.

Now turn the ignition off and then on. If the bulb also turns off and on, that outlet is the vehicle power lead.

If your vehicle is not wired for an audio unit :
Go to the fuse block and find the fuse port for radio (RADIO), accessory (ACC), or ignition (IGN).

Battery Lead
If your stereo unit has a yellow lead, you will need to locate the car's battery lead. Otherwise you may ignore this procedure. (The yellow battery lead provides continuous power to maintain a clock, memory storage, or other function.)

If your vehicle has a radio or is pre-wired for one:
With the ignition and headlights off, identify the car battery lead by grounding one lead of the test bulb to the chassis and checking the remaining exposed wires from the cut radio connector plug.

If your vehicle is not wired for an audio unit :
Go to the fuse block and find the fuse port for the battery, usually marked BAT.

Speakers
Identify the car speaker leads. There will be two leads for each speaker, usually color coded.

A handy way to identify the speaker leads and the speaker they connect with is to test the leads using a 1.5 volt AA battery as follows.

Hold one lead against one pole of the battery and stroke the other lead across the other pole. You will hear a scraping sound in a speaker if you are holding a speaker lead.
If not, keep testing different lead combinations until you have located all the speaker leads. When you label them, include the speaker location for each.

Antenna Motor
If your vehicle is equipped with an automatic power antenna, identify the vehicle motor antenna lead by connecting one bulb tester lead to the vehicle battery lead and touching the remaining exposed wires from the cut radio connector plug one at a time. You will hear the antenna motor activate when you touch the correct wire.

Antenna
The antenna lead is a thick, black wire with a metal plug at the end.

❑ Connect All Leads

Now that you have identified all the wires in the vehicle, you're ready to begin connecting them to the stereo unit wires. The connection diagram on Pages **11**, **12** show the proper connections and color coding of the leads.
We strongly recommend that you test the unit before making a final installation.
You can set the unit on the floor and make temporary connections to test the unit. Use electrical tape to cover all exposed wires.

IMPORTANT : Connect the red power lead last, after you have made and insulated all other connections.

Ground
Connect the black ground lead of the power connector to the metal vehicle chassis.

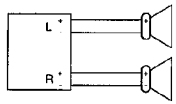
Speakers
Connect the speaker wires. See the wiring diagram below for the proper hookups. Follow the diagram carefully to avoid damaging the speakers and the stereo unit.

The speaker used must be able to handle more than 35 watts (CQ-R525), 25watts (CQ-R520) of audio power. If using an optional audio power, the speakers should be able to handle the maximum amplifier output power. Speakers with low input ratings can be damaged.

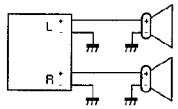
Speaker impedance should measure 4 - 8 ohms, which is typically marked on most speakers. Lower or higher impedance speakers will affect output and can cause both speaker and stereo unit damage.

CAUTION : Never ground the speaker cords. For example, do not use a chassis ground system or a three-wire speaker common system. Each speaker must be connected separately using parallel insulated wires. If in doubt about how your car's speakers are wired, please consult with your nearest professional installer.

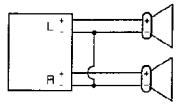
CORRECT
No Common Ground



INCORRECT
Common Chassis Ground



INCORRECT
Speaker Common
(common earth lead)



Installation Guide continued

Motor Antenna
Connect the vehicle motor antenna lead to the blue motor antenna relay control lead.

Battery
Connect the yellow battery lead to the correct radio wire or to the battery fuse port on the fuse block.

Antenna
Connect the antenna by plugging the antenna lead into the antenna receptacle.

Equipment
Connect any optional equipment such as amplifier, according to the instructions furnished with the equipment. Keep about 12 inches (30 cm) of distance between the speaker cords/amplifier unit and the antenna/antenna extension cord. Read the operating and installation instructions for any equipment you will connect to this unit.

Power
Connect the red power lead to the correct vehicle radio wire or to the appropriate fuse port on the fuse block.

If the stereo unit functions properly with all these connections made, disconnect the wires and proceed to the final installation.

❑ Final Installation

Lead Connections
Connect all wires, making sure that each connection is insulated and secure. Bundle all loose wires and fasten them with tape so they won't fall down later. Now insert the stereo unit into the mounting collar.

Congratulations! After making a few final checks, you're ready to enjoy your new auto stereo system.

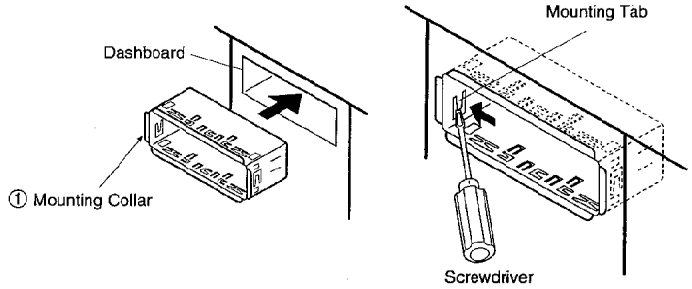
❑ Final Checks

1. Make sure that all wires are properly connected and insulated.
2. Make sure that the stereo unit is securely held in the mounting collar.
3. Turn on the ignition to check the unit for proper operation.

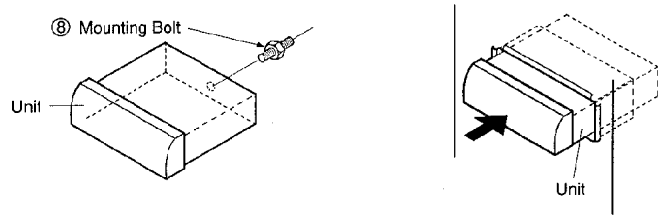
If you have difficulties, consult your nearest authorized professional installer for assistance.

❑ Installation Procedures

1. Secure the Mounting Collar ①.
Insert Mounting Collar ① into the car's dashboard, and bend mounting tabs out with a screwdriver.

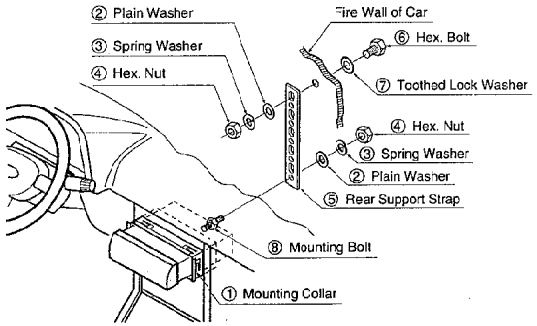


2. Secure the rear of the unit.
a) Check the electrical connection by referring to this operating instructions.
b) Connect the Mounting Bolt ⑧, using a suitable wrench.
c) Insert the unit into Mounting Collar ① and push it in until "click" is heard.

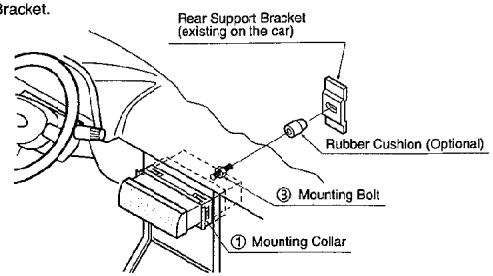


d) Secure the rear of the unit to the car by either of the two recommended methods as follows.

■ Using the Rear Support Strap ⑤
Affix one end of the Rear Support Strap ⑤ to the rear of the unit, and the other end to the Fire Wall of Car, or some other metallic area.

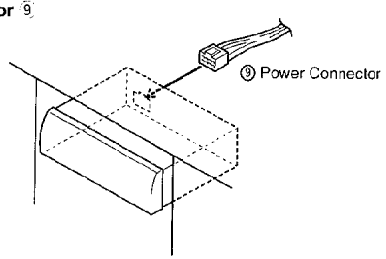


■ Using the Rubber Cushion (Optional)
(If there is an existing Rear Support Bracket on the Fire Wall of Car.)
Cover Mounting Bolt ⑧ on the rear of the unit with Rubber Cushion (Optional), and mount it into the existing Rear Support Bracket.



Installation Guide continued

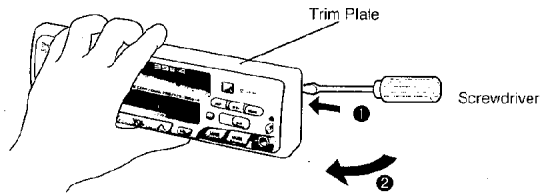
3. Plug the Power Connector ⑨



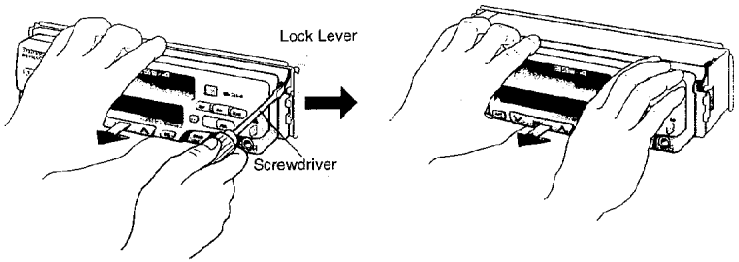
4. After installation reconnect the negative (–) battery terminal.

To Remove the Unit

a) Remove the trim plate with a screwdriver as shown in the figure.



b) Pull out the unit while pushing the lock lever using a screwdriver.
c) Remove the unit pulling with both hands.



Anti-Theft System

This unit is equipped with a removable face plate. By removing this face plate, the radio becomes totally inoperable. The security indicator will blink.

To Remove the Removable Face Plate

① Switch off the power.
② Press the release button (⏏). The removable face plate will be released.

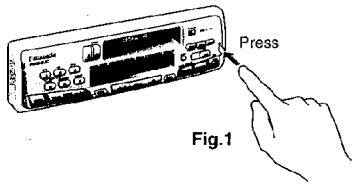


Fig.1

③ Remove the removable face plate by pulling on the right side of the unit. Place the removable face plate in a supplied case.

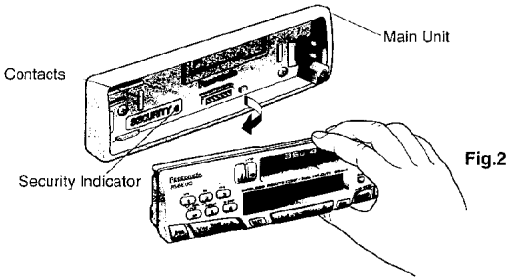
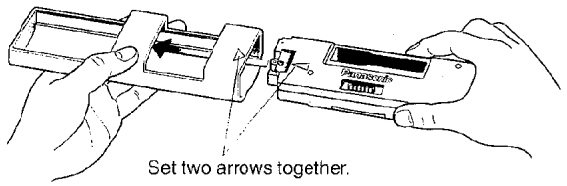


Fig.2

④ As shown in Fig.3, insert the removable face plate with the arrow pointing toward the removable face plate case until you hear a "click". Keep the removable face plate in the case. Then, you can bring the plate safely. **(Only for CQ-R525EUC)**

10 Removable Face Plate Case



Installation Guide continued

To install the Removable Face Plate

① Slice the left side of the removable face plate in place.

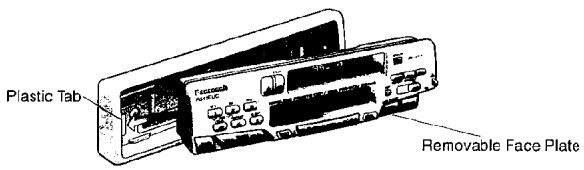


Fig.4

② Press the right end of removable face plate until "click" is heard.

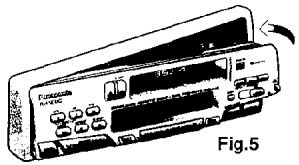


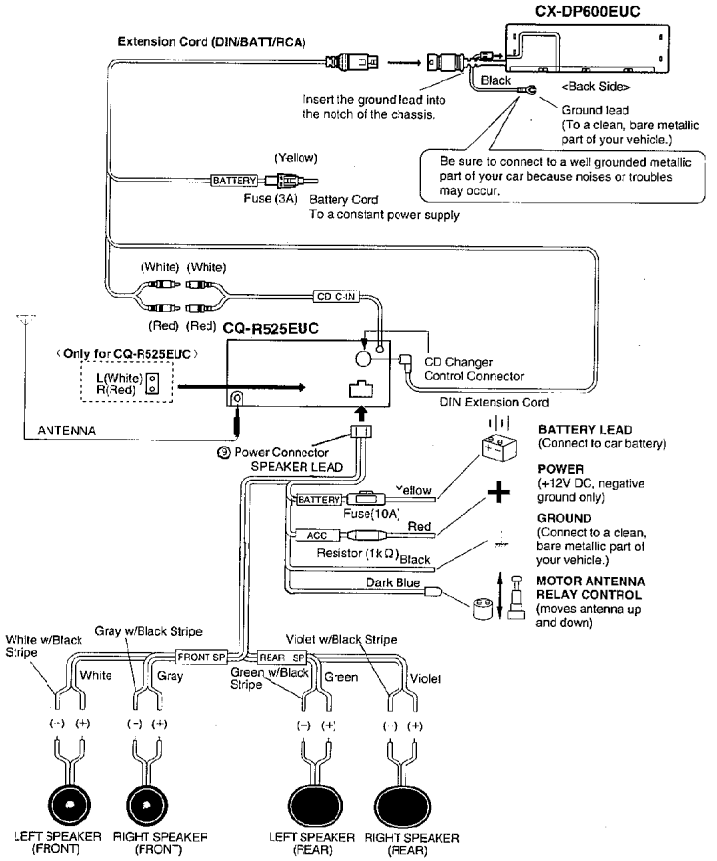
Fig.5

Caution:
1. Before removing the removable face plate, make sure the power is off.
2. This removable face plate is not water-proof. Do not expose it to water or excessive moisture.
3. Do not remove the removable face plate, while driving your car.
4. Do not place the removable face plate on the dashboard or nearby areas where the temperature rises to high levels.
5. Do not touch the contacts on the removable face plate or on the main unit, since this may result in poor electrical contacts.
6. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth.

<Only for CQ-R525EUC>

- This unit can be connected to an optional CD changer (CX-DP600EUC). For details consult your nearest Panasonic dealers.
- For connection to a CD changer, refer to the operating instructions of the CD Changer (CX-DP600EUC).

Caution:
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Remove the covering of the leads about 5 mm long from their end before connecting.
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires from a possible short-circuit from the car chassis. Bundle all cables and keep cable terminals free from touching any metal parts.



TERMINALS DESCRIPTION

IC601 YEAM17708E16

Pin No.	Port	Description	I/O	Volt(V) AM	FM	TAPE
1	BATT	Battery Detection	I	5	5	5
2	REMIN	Remote control data input	I	4	4	4
3	MODE4	Tape detection input	I	0	0	5
4	BZ IN	Warning alarm input	I	1.2	0.4	2.4
5	MS	TPS no sound detection	I	5	5	0.7
6	R-REEL	Reel pulse detection	I	5	5	0
7	F-REEL	Reel pulse detection	I	0	0	0
8	PLAYMODE	Not used	I	0	0	0
9	ST	Stereo indicator	I	4.6	4.6	4.6
10	MTL	Deck metal output H:ON L:OFF	O	0	0	0
11	DOLBY ON/OFF	Dolby NR ON/OFF change over ("L":ON "H":OFF)	O	0	0	0
12	DOLBY B/C	Not used	–	-	-	-
13	MS GAIN	Music search gain control	O	4.6	4.6	4.6
14	BZ OUT	Not used	–	–	–	–
15	MMT-R (CD mute)	Main motor control output	O/I	0	0	0
16	MMT-F (CD reset)	Main motor control output	O/I	0	0	4.6
17	FM	Power supply, FM	O	0	8.3	8.3
18	AM	Power supply, AM	O	2	2	2
19	ALARM CNT	Not Used	–	–	–	–
20	SSC	FM /AM SSC control	O	0	0	0
21	GND	Ground	-	0	0	0
22	TEL MS	Ground	–	0	0	0
23	TEL SEN	Ground	–	0	0	0
24	INIT B	Inisial	I	3	3	3
25	INIT A	Inisial	I	3	3	3
26	SD FM	FM SD input	I	0.5	0	0
27	SD AM	AM SD input	I	0	0	0

Pin No.	Port	Description	I/O	Volt(V) AM	FM	TAPE
28	AMIFC	AM IF input	I	2.5	2.5	2.5
29	FMIFC	FM IF input	I	2.5	2.5	2.5
30	VDD	Power supply +5V	-	5	5	5
31	FM OSC	FM OSC input	I	2.6	0	0
32	AM OSC	AM OSC input	I	0	2.4	0
33	GND	Ground	-	0	0	0
34	E01	FM /AM VT output	O	1.4	1.4	1.4
35	E02	Not used	–	-	-	-
36	NC	Connect to ground	-	0	0	0
37	MONO	Not used	–	–	–	–
38	LOC	FM /AM DX-LOC control	O	0	0	0
39	NC	Not used	–	-	-	-
40	BEEP	Not used	–	-	-	-
41	ACC	Power suply	I	5	5	5
42	CDC STB	Strobe input for CD changer	I	0	0	0
43	TAPE EXIST	T-In SW input	I	0	0	0
44	A/B	Tape A/B side detection	I	5	5	5
45	TAPE SLOW	Slow control	O	5	5	5
46	F/R	Head SW change over detection (forward/reverse)	O	4.7	4.7	4.7
47	PW CNT	Power control	O	4.6	4.6	4.6
48	SYS CNT	AMP ST-BY contol	O	4.7	4.7	4.7
49	MUTE	Mute output("L": mute ON)	O	4.7	4.7	4.7
50	CD PW ON	Not used	–	-	-	-
51	MS GAIN2	No sound detection	O	0	0	0
52	CD GAIN	Not used	–	–	–	–
53	MONO CNT3	Not used	–	–	–	–
54	MONO CNT	Not used	–	–	–	–

Pin No.	Port	Description	I/O	Volt(V) AM	FM	TAPE
55	MONO CNT2	Not used	–	–	–	–
56	LCD CLK	LCD clock	O	0	0	0
57	LCD DI	LCD data input	I	0	0	0
58	LCD CE	LCD Chip enble	O	0	0	0
59	LCD DO	LCD data output	I	4.5	4.5	4.5
60	LED	Not used	–	–	–	–
61	HDB	Not used	–	-	-	-
62	REMOUT	CD changer RM data	O	4.7	4.7	4.7
63	I2C DATA	I2C data	I	5	5	5
64	I2C CLK	I2C clock	O	5	5	5
65	CDC CLK	CD changer Clock	I	0	0	0
66	EQ IN	Metal detection input	I	0	0	0
67	CDC DATA	CDC data	I	0	0	0
68	MODE3	Tape deck mode 3	O	5	5	0
69	MODE2	Tape deck mode2	O	5	5	5
70	MODE1	Tape deck mode1	I	5	5	5
71	SMT-R	Sub motor control	I	4.1	4.1	4.1
72	SMT-F	Sub motor control	O	4.1	4.1	4.1
73	TEL MUTE	TEL mute control input	I	4.7	4.7	4.7
74	NC	Not used	-	–	–	–
75	GND	Ground	-	0	0	0
76	X OUT	Crystal oscilator	O	2.4	2.4	2.4
77	X IN	Crystal oscilator	I	2.1	2.1	2.1
78	CE	Chip enable	I	5	5	5
79	VDD	Power supply +5V	-	5	5	5
80	RESET	Reset input	I	5	5	5

Troubleshooting

❑Maintenance
Your product is designed and manufactured to ensure a minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner, or other solvent.

❑When Something Doesn't Work
Check the charts for possible causes and solutions to any problem you might be experiencing. Some simple checks or minor adjustments may eliminate the problem.

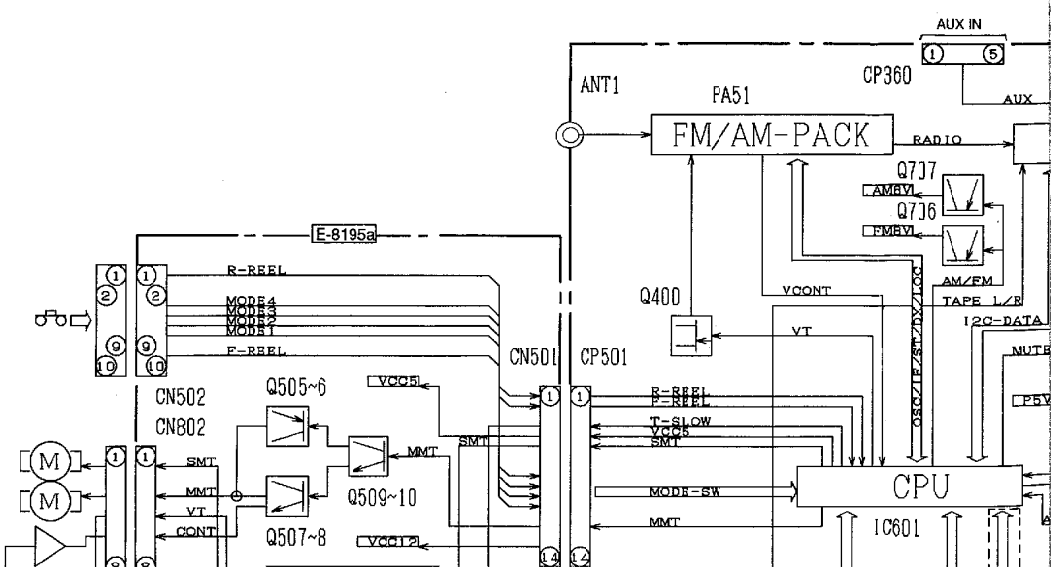
❑Product Servicing
If the suggestions in the charts don't solve the problem, we recommend that you take it to your nearest authorized MSC(in Canada: Panasonic) Servicenter. The unit should be serviced only by a qualified technician.

❑Replacing the Fuse
Use fuses of the same specified rating (10 amps). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the stereo unit.
If the replacement fuse fails, contact your nearest MSC(in Canada: Panasonic) Servicenter for service.

❑Troubleshooting Tips

PROBLEM	POSSIBLE CAUSE	PROBABLE SOLUTION
Unit won't turn on.	Dead vehicle battery. Ignition not on.	Charge vehicle battery. Turn ignition to On or Accessory.
	Bad power line connection. Fuse burned out	Check connections. Replace fuse.
Radio has static.	Antenna not hooked up.	Hook up antenna.
	Close to high power lines.	Move away from high power lines.
Radio memory buttons don't work.	Not holding buttons down long enough.	Press and hold buttons for more than 2 seconds.
Tape sound quality is poor.	Heads are dirty.	Clean heads. (Ask a service representative for advice.)
	Poor quality tape.	Use better quality tape.
Tape won't change programs.	Not pressing ▶▶(FF) and ◀◀(REW) buttons at the same time.	Press ▶▶(FF) and ◀◀(REW) buttons at the same time.
CD player won't operate.	Unit not properly connected. Unit not switched into CD mode. No CDs in the magazine.	Check connections. Press CD•C button. Check disc magazine.
CD won't play a specific disc.	Disc loaded upside down. Disc damaged. Disc not loaded in magazine.	Reload disc properly. Check disc for scratches, chips. Check disc magazine.

BLOCK DIAGRAM MODELS CQ-R525EUC / R520EUC



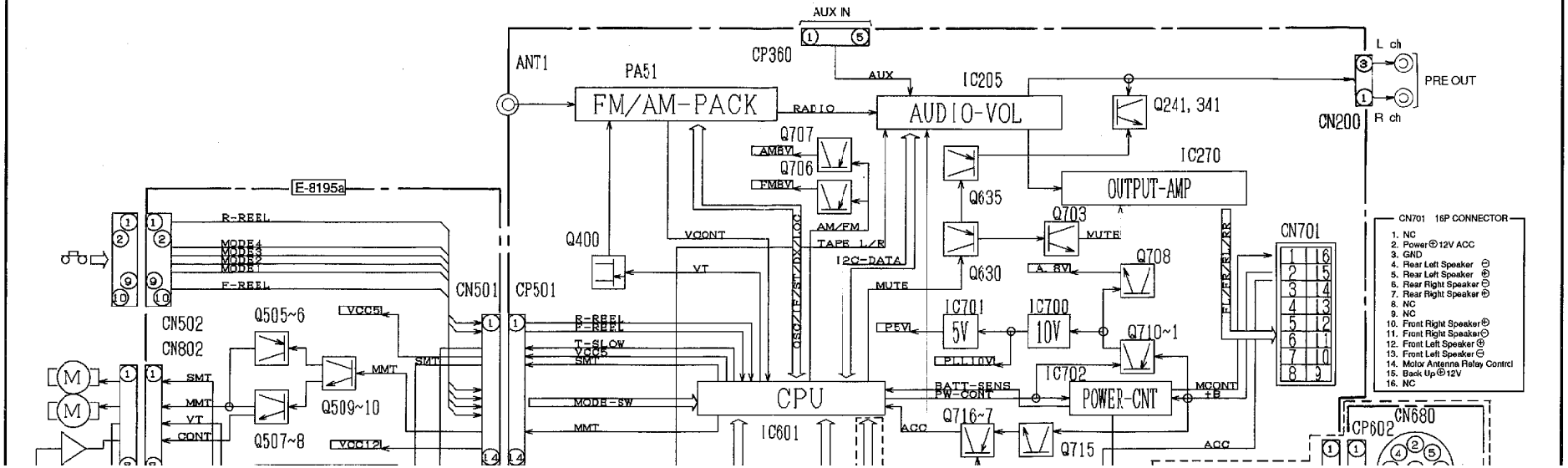
Port	Description	I/O	Volt(V) AM	FM	TAPE
°C	AM IF input	I	2.5	2.5	2.5
°C	FM IF input	I	2.5	2.5	2.5
	Power supply +5V	-	5	5	5
)SC	FM OSC input	I	2.6	0	0
)SC	AM OSC input	I	0	2.4	0
	Ground	-	0	0	0
	FM /AM VT output	O	1.4	1.4	1.4
	Not used	–	-	-	-
	Connect to ground	-	0	0	0
IO	Not used	–	–	–	–
	FM /AM DX-LOC control	O	0	0	0
	Not used	–	-	-	-
P	Not used	–	-	-	-
	Power suplly	I	5	5	5
STB	Strobe input for CD changer	I	0	0	0
E EXIST	T-in SW input	I	0	0	0
	Tape A/B side detection	I	5	5	5
E SLOW	Slow control	O	5	5	5
	Head SW change over detection (ferward/reverse)	O	4.7	4.7	4.7
NT	Power control	O	4.6	4.6	4.6
CNT	AMP ST-BY control	O	4.7	4.7	4.7
E	Mute output("L": mute ON)	O	4.7	4.7	4.7
W ON	Not used	–	-	-	-
BAIN2	No sound detection	O	0	0	0
BAIN	Not used	–	–	–	–
IO CNT3	Not used	–	–	–	–
IO CNT	Not used	–	–	–	–

Pin No.	Port	Description	I/O	Volt(V) AM	FM	TAPE
55	MONO CNT2	Not used	–	–	–	–
56	LCD CLK	LCD clock	O	0	0	0
57	LCD DI	LCD data input	I	0	0	0
58	LCD CE	LCD Chip enble	O	0	0	0
59	LCD DO	LCD data output	I	4.5	4.5	4.5
60	LED	Not used	–	–	–	–
61	HDB	Not used	–	-	-	-
62	REMOUT	CD changer RM data	O	4.7	4.7	4.7
63	I2C DATA	I2C data	I	5	5	5
64	I2C CLK	I2C clock	O	5	5	5
65	CDC CLK	CD changer Clock	I	0	0	0
66	EQ IN	Metal detection input	I	0	0	0
67	CDC DATA	CDC data	I	0	0	0
68	MODE3	Tape deck mode 3	O	5	5	0
69	MODE2	Tape deck mode2	O	5	5	5
70	MODE1	Tape deck mode1	I	5	5	5
71	SMT-R	Sub motor control	I	4.1	4.1	4.1
72	SMT-F	Sub motor control	O	4.1	4.1	4.1
73	TEL MUTE	TEL mute control input	I	4.7	4.7	4.7
74	NC	Not used	-	-	-	-
75	GND	Ground	-	0	0	0
76	X OUT	Crysal osciator	O	2.4	2.4	2.4
77	X IN	Crysal osciator	I	2.1	2.1	2.1
78	CE	Chip enable	I	5	5	5
79	VDD	Power supply +5V	-	5	5	5
80	RESET	Reset input	I	5	5	5

■IC901 YEAMLC75853W

Pin NO.	Port	Description	I/O	Volt(V) AM/FM/TAPE
1	MIC CON"	Not Used	–	–
2	PLAY ST/SP	Not Used	–	–
3	P.LED	LED Indicator	O	0V
4	ILL	NC	–	–
5~31	S5~S31	LCD Segment	O	2.3V
32~40	S32~S40	Not Used	–	–
41	COM1	LCD Common	O	2.3V
42	COM2	LCD Common	O	2.3V
43	COM3	LCD Common	O	2.3V
44	KS1	Not Used	–	–
45~49	KS2~KS6	Key Data Output	O	5.0V
50~53	KI1~KI4	Key Data Input	I	0V
54, 55	TEST	GND	–	0V
56	VDD	+5V Power Supply	–	5.0V
57	VDD1	+5V Power Supply	–	3.1V
58	VDD2	+5V Power Supply	–	1.6V
59	VSS	GND	–	0V
60	OSC	CR Oscillator	–	3.7V
61	DO	LCD Data Output	O	4.5V
62	CE	Chip Enable	I	0.3V
63	CLK	LCD Clock Input	I	0V
64	DI	LCD Data Input	I	0V

BLOCK DIAGRAM MODELS CQ-R525EUC / R520EUC



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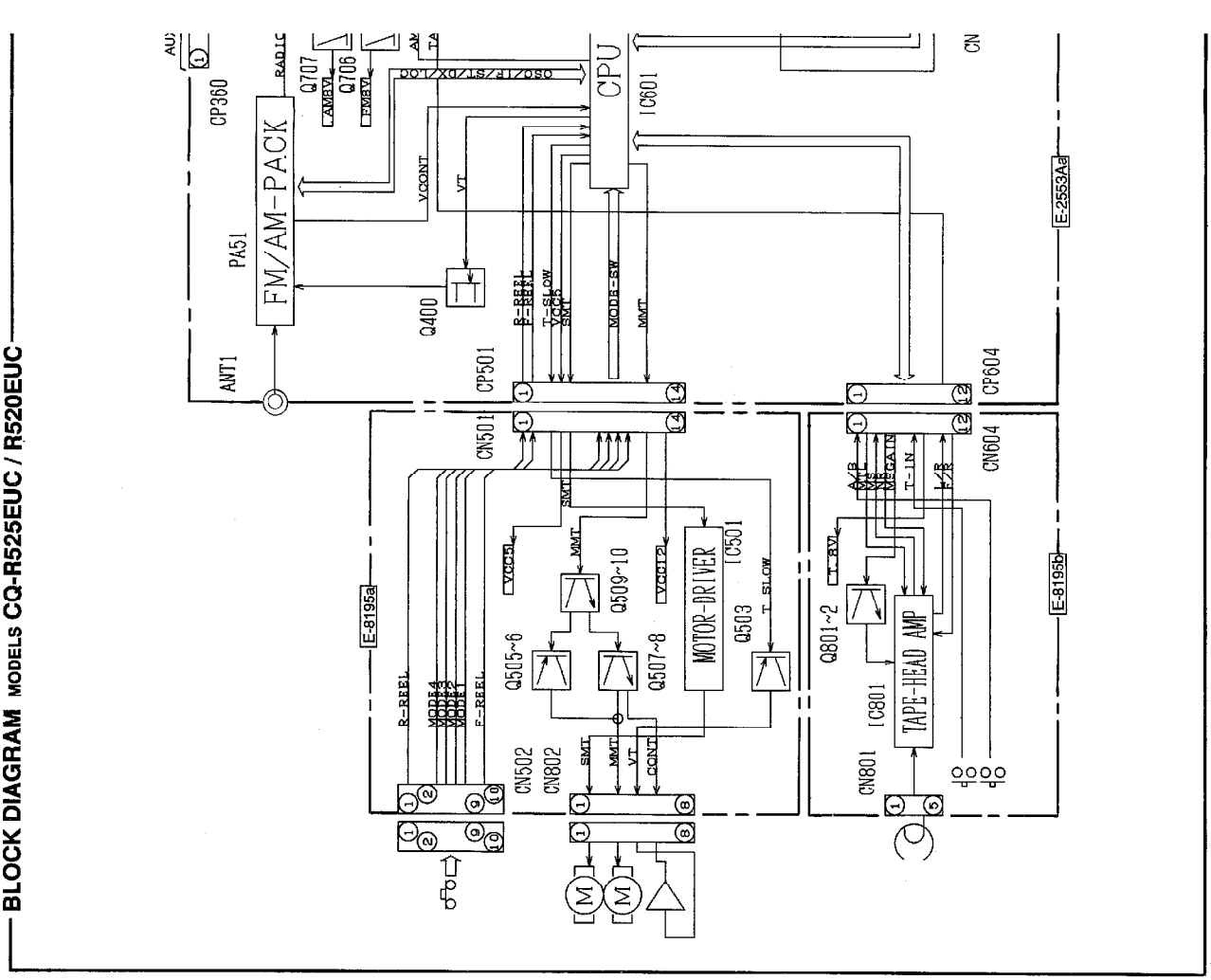

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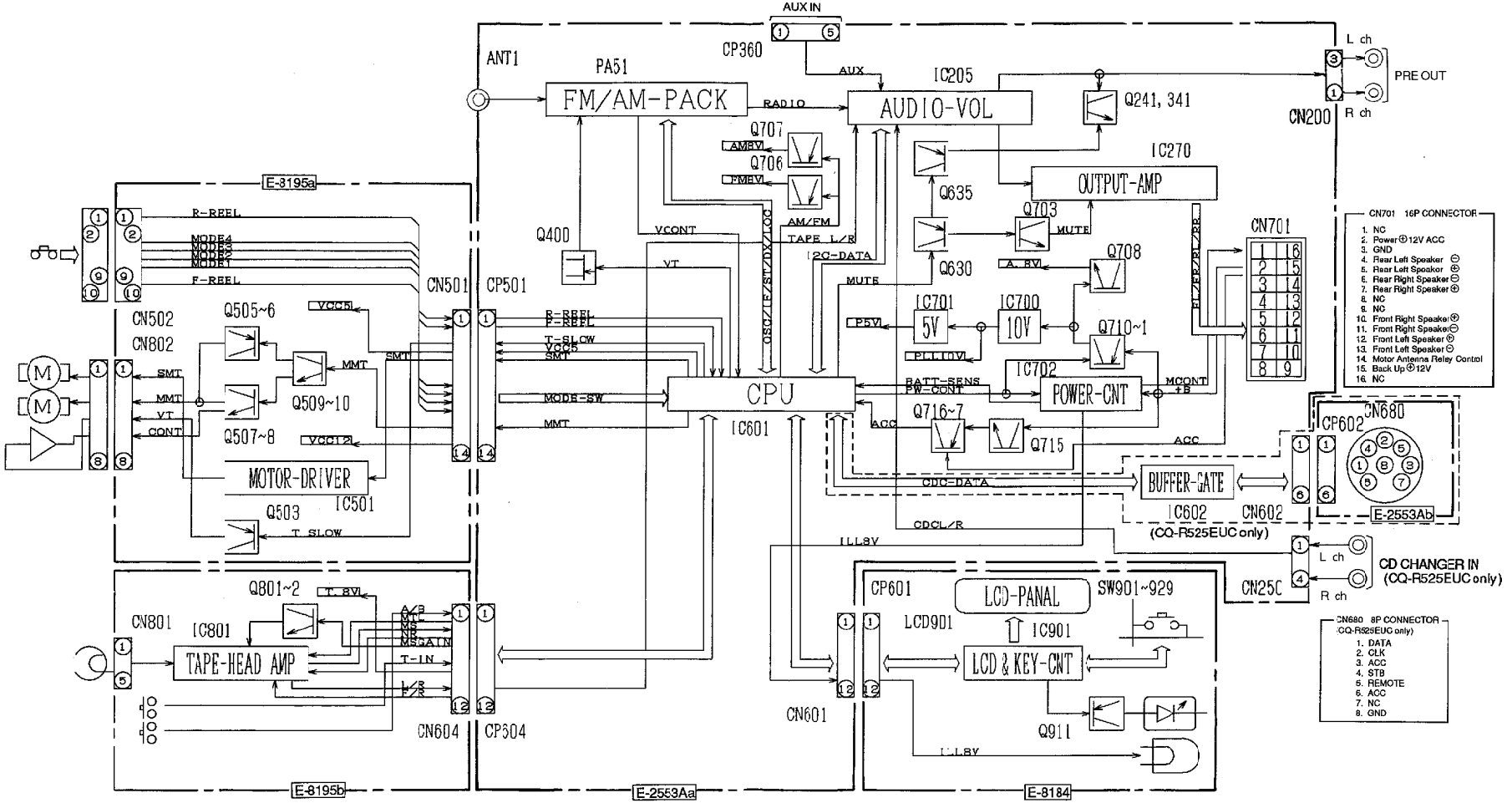
GAIN	Not used	–	–	–	–
NO CNT3	Not used	–	–	–	–
NO CNT	Not used	–	–	–	–

79	VDD	Power supply +5V	-	5	5	5
80	RESET	Reset input	I	5	5	5

64	DI	LCD Data Inpout	I	0V

BLOCK DIAGRAM MODELS CQ-R525EUC / R520EUC



Cassette Receiver with CD Changer Control

TERMINALS DESCRIPTION

IC601 YEAM17708E16

Pin No.	Port	Description	I/O	Volt(V) AM	FM	TAPE
1	BATT	Battery Detection	I	5	5	5
2	REMIN	Remote control data input	I	4	4	4
3	MODE4	Tape detection input	I	0	0	5
4	BZ IN	Warning alarm input	I	1.2	0.4	2.4
5	MS	TPS no sound detection	I	5	5	0.7
6	R-REEL	Reel pulse detection	I	5	5	0
7	F-REEL	Reel pulse detection	I	0	0	0
8	PLAYMODE	Not used	I	0	0	0
9	ST	Stereo indicator	I	4.6	4.6	4.6
10	MTL	Deck metal output H:ON L:OFF	O	0	0	0
11	DOLBY ON/OFF	Dolby NR ON/OFF change over ("L":ON "H":OFF)	O	0	0	0
12	DOLBY B/C	Not used	–	-	-	-
13	MS GAIN	Music search gain control	O	4.6	4.6	4.6
14	BZ OUT	Not used	–	–	–	–
15	MMT-R (CD mute)	Main motor control output	O/I	0	0	0
16	MMT-F (CD reset)	Main motor control output	O/I	0	0	4.6
17	FM	Power supply, FM	O	0	8.3	8.3
18	AM	Power supply, AM	O	2	2	2
19	ALARM CNT	Not Used	–	–	–	–
20	SSC	FM /AM SSC control	O	0	0	0
21	GND	Ground	-	0	0	0
22	TEL MS	Ground	–	0	0	0
23	TEL SEN	Ground	–	0	0	0
24	INIT B	Inisial	I	3	3	3
25	INIT A	Inisial	I	3	3	3
26	SD FM	FM SD input	I	0.5	0	0
27	SD AM	AM SD input	I	0	0	0

Pin No.	Port	Description	I/O	Volt(V) AM	FM	TAPE
28	AMIFC	AM IF input	I	2.5	2.5	2.5
29	FMIFC	FM IF input	I	2.5	2.5	2.5
30	VDD	Power supply +5V	-	5	5	5
31	FM OSC	FM OSC input	I	2.6	0	0
32	AM OSC	AM OSC input	I	0	2.4	0
33	GND	Ground	-	0	0	0
34	E01	FM /AM VT output	O	1.4	1.4	1.4
35	E02	Not used	–	-	-	-
36	NC	Connect to ground	-	0	0	0
37	MONO	Not used	–	–	–	–
38	LOC	FM /AM DX-LOC control	O	0	0	0
39	NC	Not used	–	-	-	-
40	BEEP	Not used	–	-	-	-
41	ACC	Power suply	I	5	5	5
42	CDC STB	Strobe input for CD changer	I	0	0	0
43	TAPE EXIST	T-In SW input	I	0	0	0
44	A/B	Tape A/B side detection	I	5	5	5
45	TAPE SLOW	Slow control	O	5	5	5
46	F/R	Head SW change over detection (forward/reverse)	O	4.7	4.7	4.7
47	PW CNT	Power control	O	4.6	4.6	4.6
48	SYS CNT	AMP ST-BY contol	O	4.7	4.7	4.7
49	MUTE	Mute output("L": mute ON)	O	4.7	4.7	4.7
50	CD PW ON	Not used	–	-	-	-
51	MS GAIN2	No sound detection	O	0	0	0
52	CD GAIN	Not used	–	–	–	–
53	MONO CNT3	Not used	–	–	–	–
54	MONO CNT	Not used	–	–	–	–

Pin No.	Port	Description	I/O	Volt(V) AM	FM	TAPE
55	MONO CNT2	Not used	–	–	–	–
56	LCD CLK	LCD clock	O	0	0	0
57	LCD DI	LCD data input	I	0	0	0
58	LCD CE	LCD Chip enble	O	0	0	0
59	LCD DO	LCD data output	I	4.5	4.5	4.5
60	LED	Not used	–	–	–	–
61	HDB	Not used	–	-	-	-
62	REMOUT	CD changer RM data	O	4.7	4.7	4.7
63	I2C DATA	I2C data	I	5	5	5
64	I2C CLK	I2C clock	O	5	5	5
65	CDC CLK	CD changer Clock	I	0	0	0
66	EQ IN	Metal detection input	I	0	0	0
67	CDC DATA	CDC data	I	0	0	0
68	MODE3	Tape deck mode 3	O	5	5	0
69	MODE2	Tape deck mode2	O	5	5	5
70	MODE1	Tape deck mode1	I	5	5	5
71	SMT-R	Sub motor control	I	4.1	4.1	4.1
72	SMT-F	Sub motor control	O	4.1	4.1	4.1
73	TEL MUTE	TEL mute control input	I	4.7	4.7	4.7
74	NC	Not used	-	–	–	–
75	GND	Ground	-	0	0	0
76	X OUT	Crystal oscilator	O	2.4	2.4	2.4
77	X IN	Crystal oscilator	I	2.1	2.1	2.1
78	CE	Chip enable	I	5	5	5
79	VDD	Power supply +5V	-	5	5	5
80	RESET	Reset input	I	5	5	5

Troubleshooting

❑Maintenance
Your product is designed and manufactured to ensure a minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner, or other solvent.

❑When Something Doesn't Work
Check the charts for possible causes and solutions to any problem you might be experiencing. Some simple checks or minor adjustments may eliminate the problem.

❑Product Servicing
If the suggestions in the charts don't solve the problem, we recommend that you take it to your nearest authorized MSC(in Canada: Panasonic) Servicenter. The unit should be serviced only by a qualified technician.

❑Replacing the Fuse
Use fuses of the same specified rating (10 amps). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the stereo unit.
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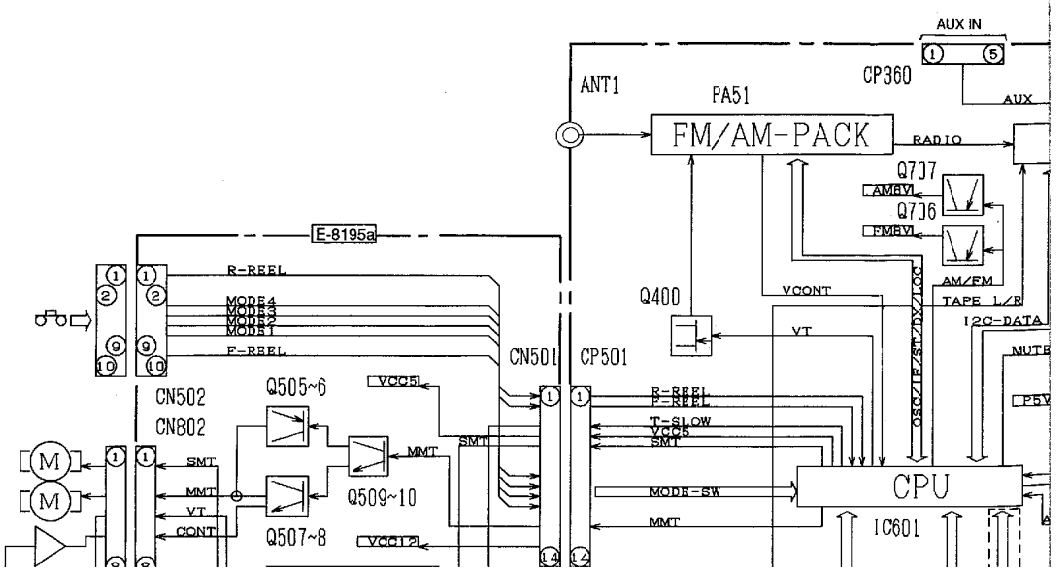
❑Troubleshooting Tips

PROBLEM	POSSIBLE CAUSE	PROBABLE SOLUTION
Unit won't turn on.	Dead vehicle battery. Ignition not on.	Charge vehicle battery. Turn ignition to On or Accessory.
	Bad power line connection. Fuse burned out	Check connections. Replace fuse.
Radio has static.	Antenna not hooked up.	Hook up antenna.
	Close to high power lines.	Move away from high power lines.
Radio memory buttons don't work.	Not holding buttons down long enough.	Press and hold buttons for more than 2 seconds.
Tape sound quality is poor.	Heads are dirty.	Clean heads. (Ask a service representative for advice.)
	Poor quality tape.	Use better quality tape.
Tape won't change programs.	Not pressing ▶▶(FF) and ◀◀(REW) buttons at the same time.	Press ▶▶(FF) and ◀◀(REW) buttons at the same time.
CD player won't operate.	Unit not properly connected. Unit not switched into CD mode. No CDs in the magazine.	Check connections. Press CD•C button. Check disc magazine.
CD won't play a specific disc.	Disc loaded upside down. Disc damaged. Disc not loaded in magazine.	Reload disc properly. Check disc for scratches, chips. Check disc magazine.

BLOCK DIAGRAM MODELS CQ-R525EUC / R520EUC



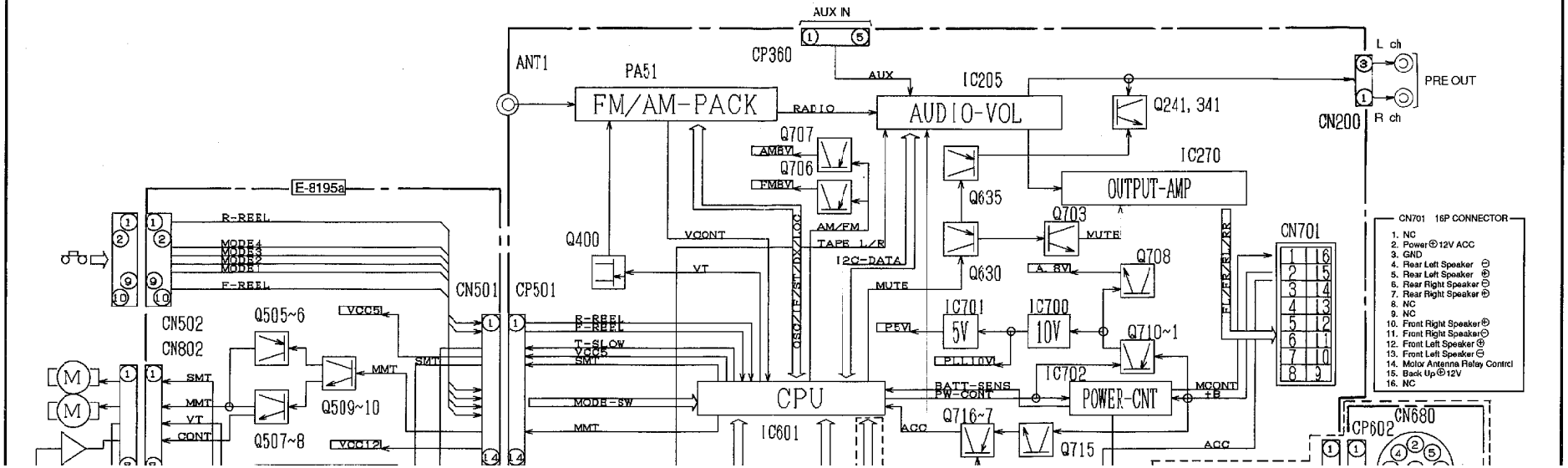
Port	Description	I/O	Volt(V) AM	FM	TAPE
°C	AM IF input	I	2.5	2.5	2.5
°C	FM IF input	I	2.5	2.5	2.5
	Power supply +5V	-	5	5	5
)SC	FM OSC input	I	2.6	0	0
)SC	AM OSC input	I	0	2.4	0
	Ground	-	0	0	0
	FM /AM VT output	O	1.4	1.4	1.4
	Not used	–	-	-	-
	Connect to ground	-	0	0	0
IO	Not used	–	–	–	–
	FM /AM DX-LOC control	O	0	0	0
	Not used	–	-	-	-
P	Not used	–	-	-	-
	Power suplly	I	5	5	5
STB	Strobe input for CD changer	I	0	0	0
E EXIST	T-in SW input	I	0	0	0
	Tape A/B side detection	I	5	5	5
E SLOW	Slow control	O	5	5	5
	Head SW change over detection (ferward/reverse)	O	4.7	4.7	4.7
NT	Power control	O	4.6	4.6	4.6
CNT	AMP ST-BY control	O	4.7	4.7	4.7
E	Mute output("L": mute ON)	O	4.7	4.7	4.7
W ON	Not used	–	-	-	-
BAIN2	No sound detection	O	0	0	0
BAIN	Not used	–	–	–	–
IO CNT3	Not used	–	–	–	–
IO CNT	Not used	–	–	–	–

Pin No.	Port	Description	I/O	Volt(V) AM	FM	TAPE
55	MONO CNT2	Not used	–	–	–	–
56	LCD CLK	LCD clock	O	0	0	0
57	LCD DI	LCD data input	I	0	0	0
58	LCD CE	LCD Chip enble	O	0	0	0
59	LCD DO	LCD data output	I	4.5	4.5	4.5
60	LED	Not used	–	–	–	–
61	HDB	Not used	–	-	-	-
62	REMOUT	CD changer RM data	O	4.7	4.7	4.7
63	I2C DATA	I2C data	I	5	5	5
64	I2C CLK	I2C clock	O	5	5	5
65	CDC CLK	CD changer Clock	I	0	0	0
66	EQ IN	Metal detection input	I	0	0	0
67	CDC DATA	CDC data	I	0	0	0
68	MODE3	Tape deck mode 3	O	5	5	0
69	MODE2	Tape deck mode2	O	5	5	5
70	MODE1	Tape deck mode1	I	5	5	5
71	SMT-R	Sub motor control	I	4.1	4.1	4.1
72	SMT-F	Sub motor control	O	4.1	4.1	4.1
73	TEL MUTE	TEL mute control input	I	4.7	4.7	4.7
74	NC	Not used	-	-	-	-
75	GND	Ground	-	0	0	0
76	X OUT	Crysal osciator	O	2.4	2.4	2.4
77	X IN	Crysal osciator	I	2.1	2.1	2.1
78	CE	Chip enable	I	5	5	5
79	VDD	Power supply +5V	-	5	5	5
80	RESET	Reset input	I	5	5	5

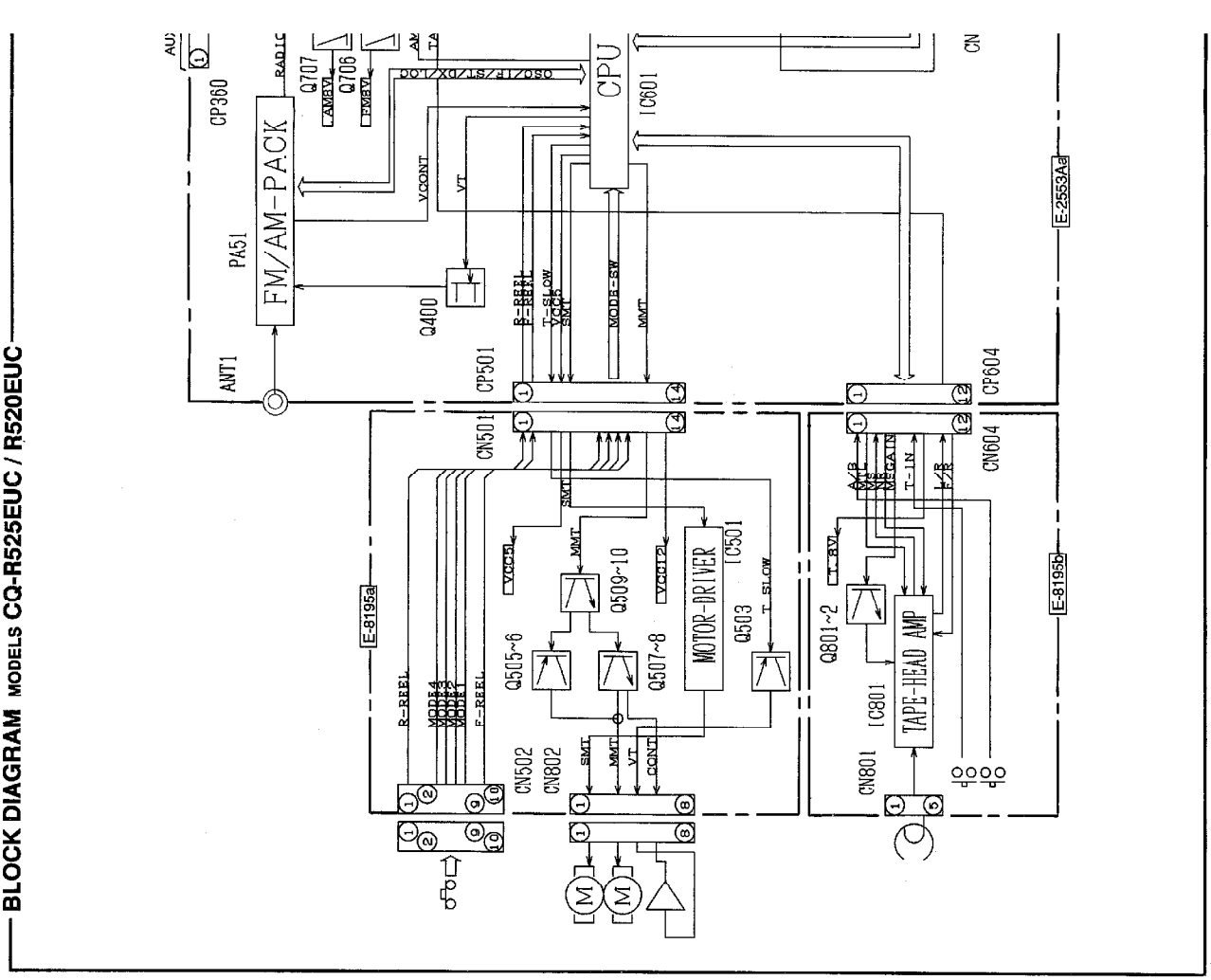
■IC901 YEAMLC75853W

Pin NO.	Port	Description	I/O	Volt(V) AM/FM/TAPE
1	MIC CON"	Not Used	–	–
2	PLAY ST/SP	Not Used	–	–
3	P.LED	LED Indicator	O	0V
4	ILL	NC	–	–
5~31	S5~S31	LCD Segment	O	2.3V
32~40	S32~S40	Not Used	–	–
41	COM1	LCD Common	O	2.3V
42	COM2	LCD Common	O	2.3V
43	COM3	LCD Common	O	2.3V
44	KS1	Not Used	–	–
45~49	KS2~KS6	Key Data Output	O	5.0V
50~53	KI1~KI4	Key Data Input	I	0V
54, 55	TEST	GND	–	0V
56	VDD	+5V Power Supply	–	5.0V
57	VDD1	+5V Power Supply	–	3.1V
58	VDD2	+5V Power Supply	–	1.6V
59	VSS	GND	–	0V
60	OSC	CR Oscillator	–	3.7V
61	DO	LCD Data Output	O	4.5V
62	CE	Chip Enable	I	0.3V
63	CLK	LCD Clock Input	I	0V
64	DI	LCD Data Input	I	0V

BLOCK DIAGRAM MODELS CQ-R525EUC / R520EUC



BLOCK DIAGRAM MODELS CQ-R525EUC / R520EUC



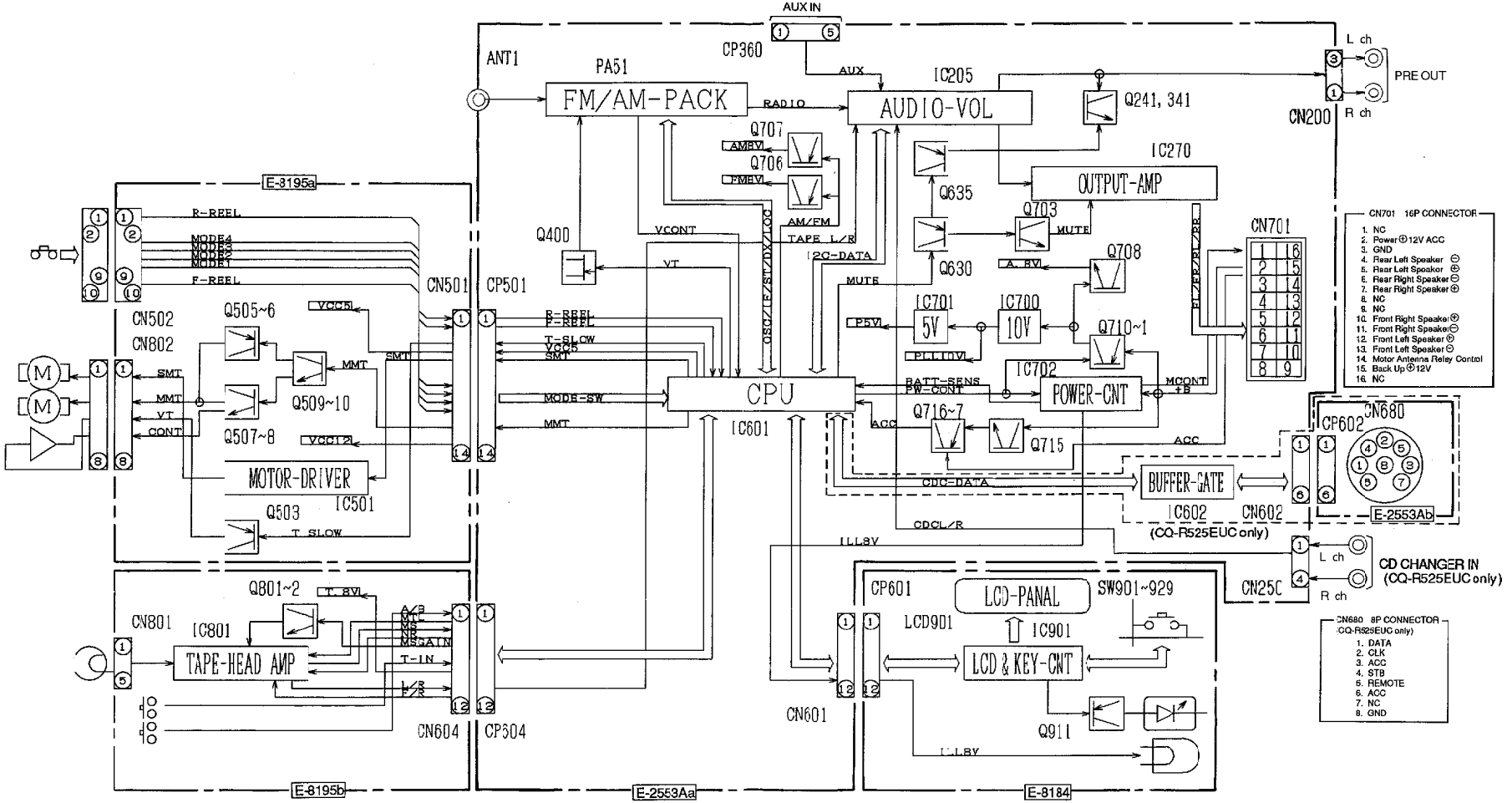
| | | |

GAIN	Not used	–	–	–	–
NO CNT3	Not used	–	–	–	–
NO CNT	Not used	–	–	–	–

79	VDD	Power supply +5V	-	5	5	5
80	RESET	Reset input	I	5	5	5

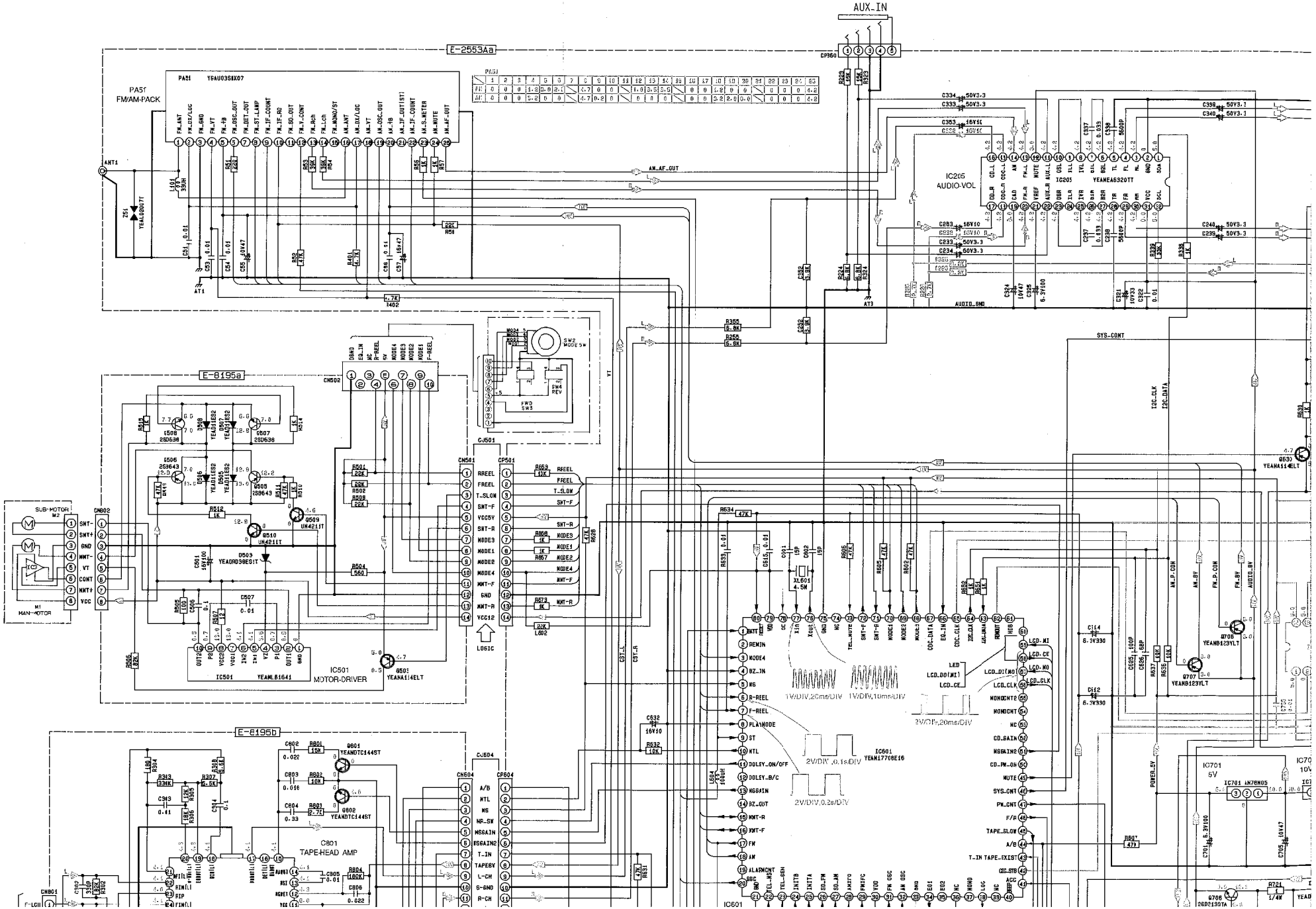
64	DI	LCD Data Inpout	I	0V

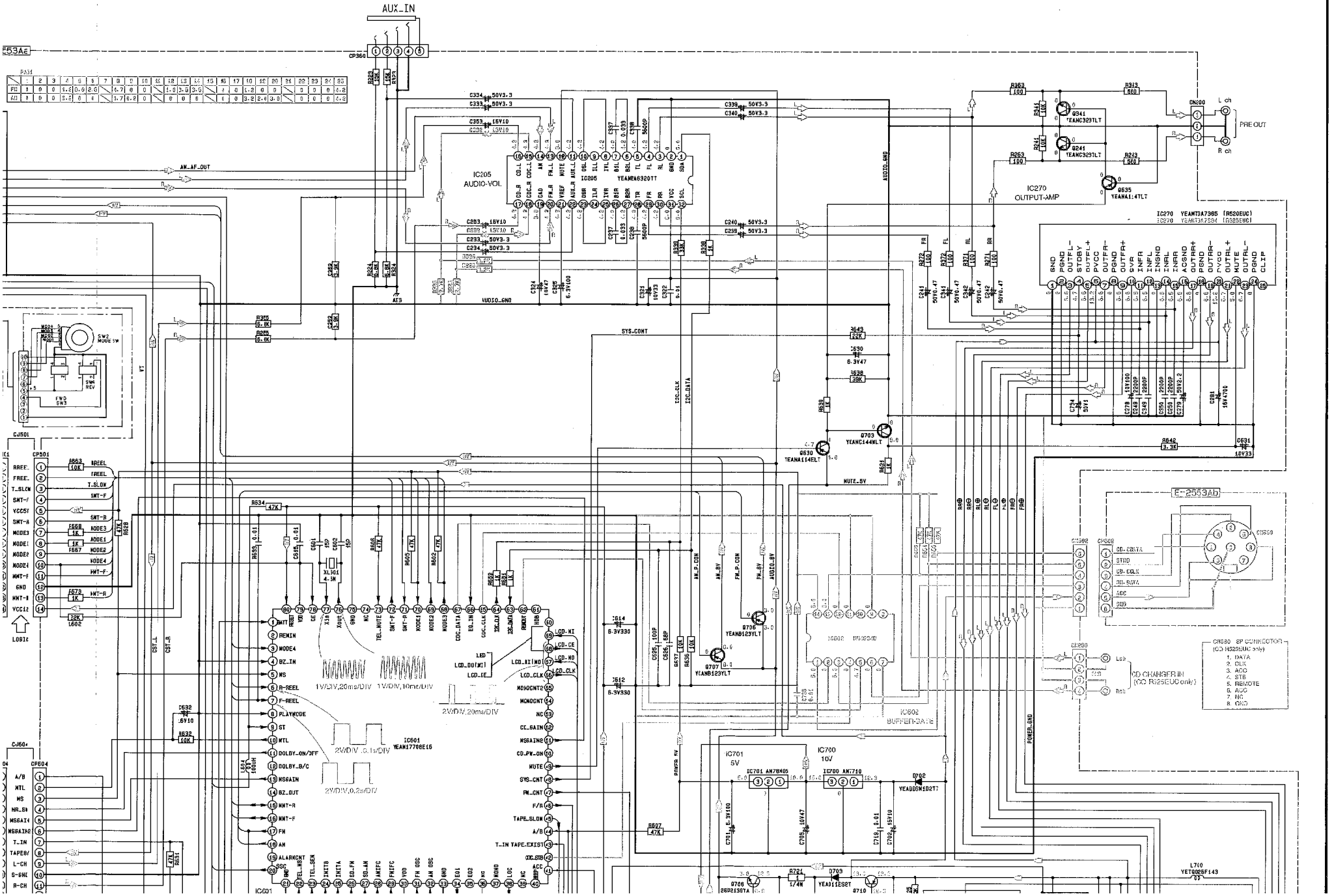
BLOCK DIAGRAM MODELS CQ-R525EUC / R520EUC

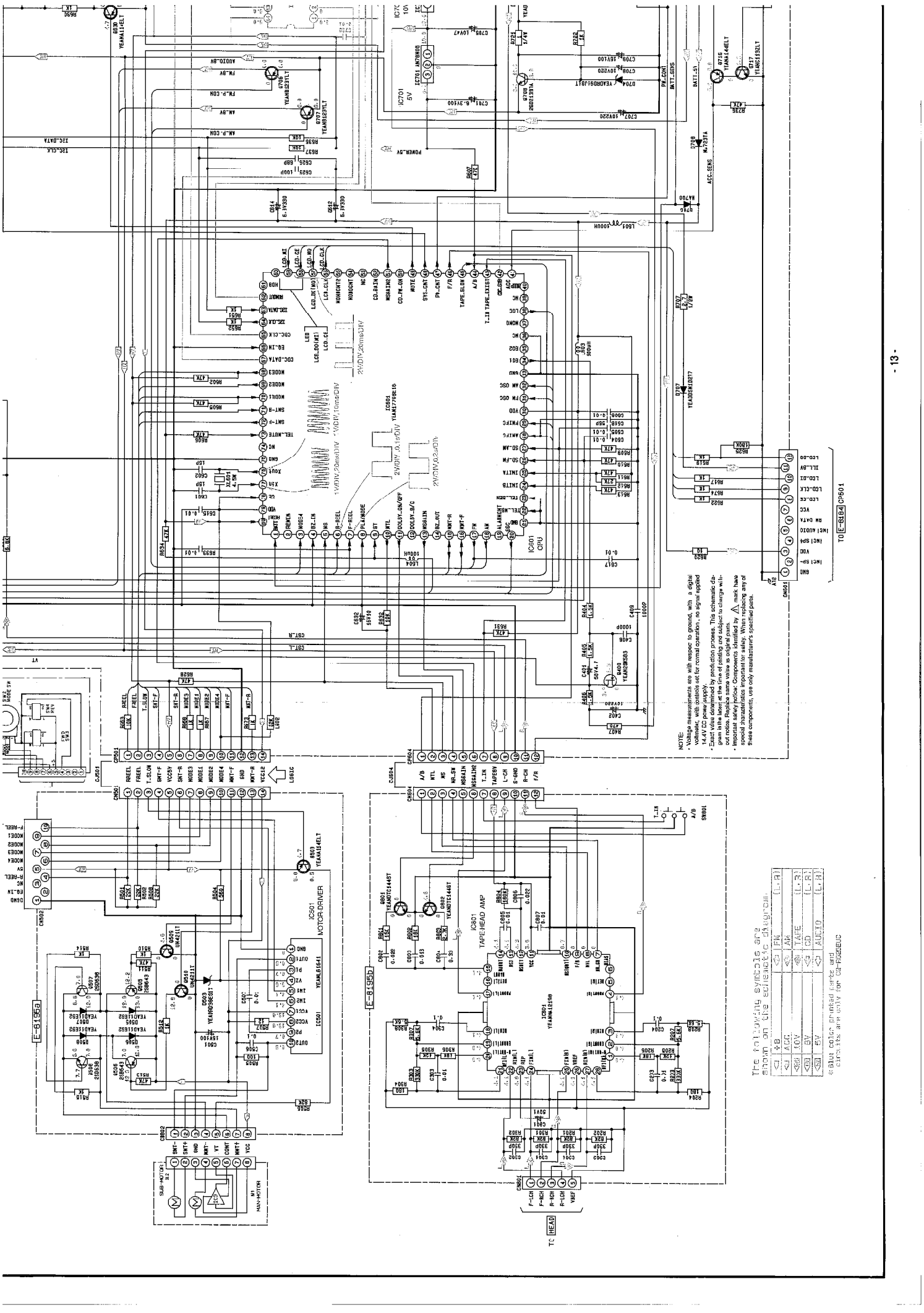


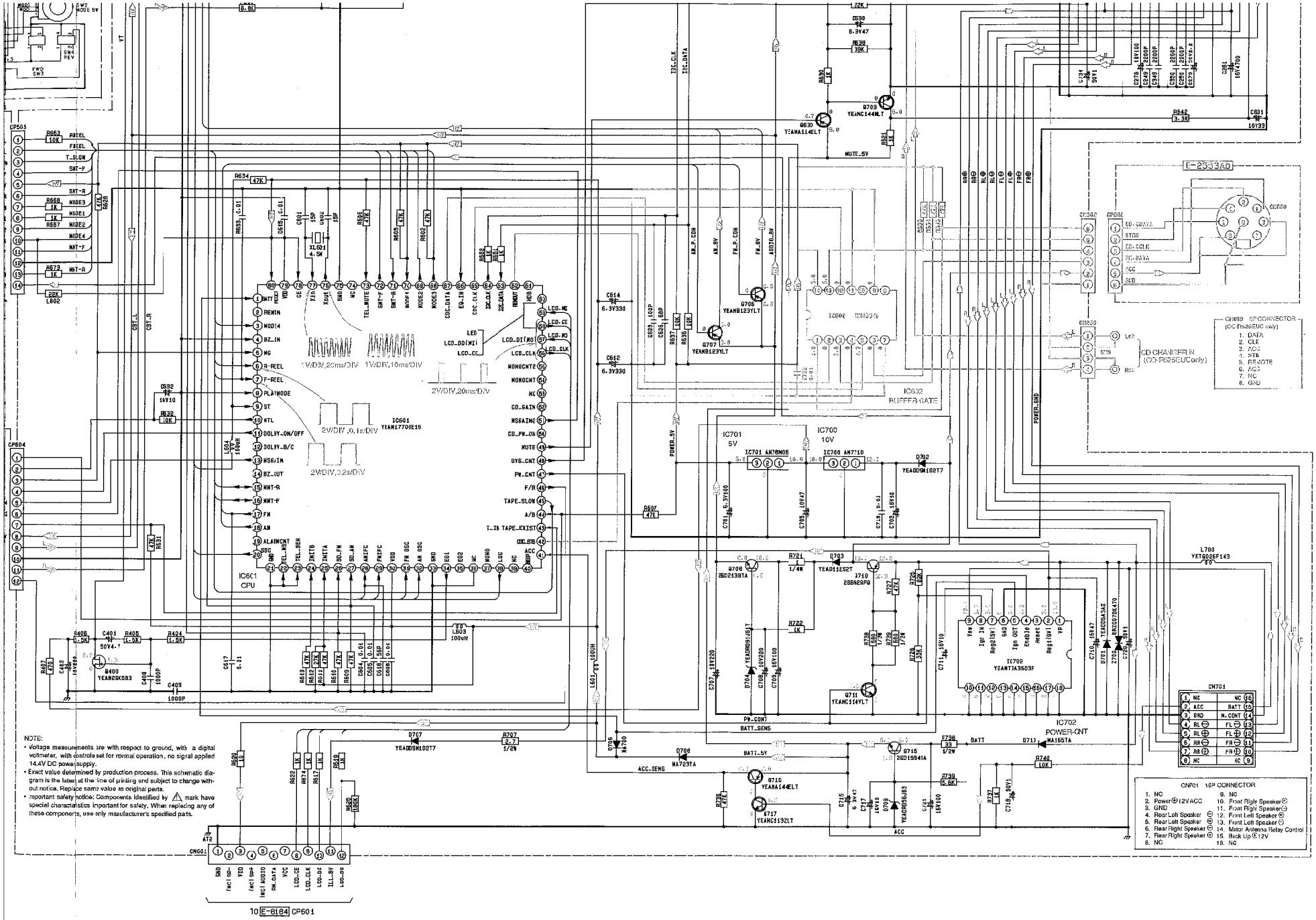
Cassette Receiver with CD Changer Control

SCHEMATIC DIAGRAM (MAIN / TAPE PLAYER BLOCK) MODELS CQ-R525EUC / R520EUC

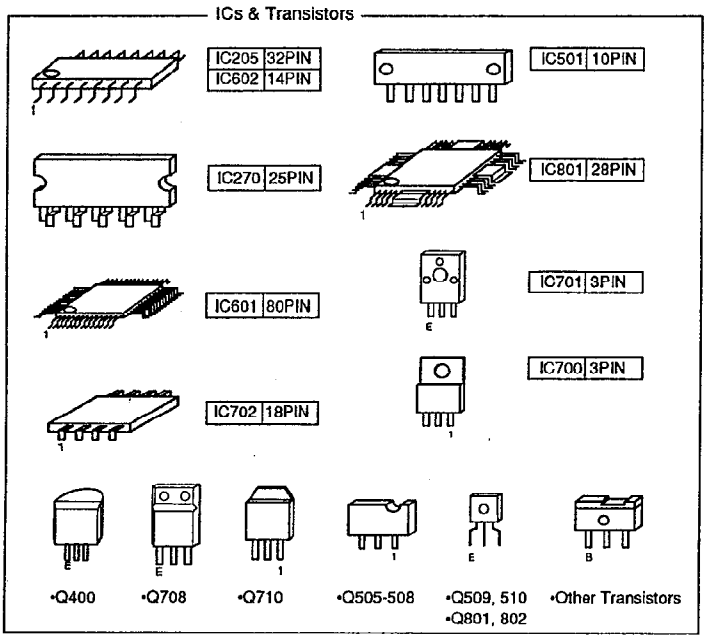



AUX_IN
IC205
AUDIO-VOL
IC270
OUTPUT-AMP
PRE OUT
L ch
R ch
IC601
IC602
BUFFER/DATE
IC700
IC701
SYS_CONT
AUDIO_GND
POWER_GND
I2C_CLK
I2C_DATA
MUTE_5V
CD CHANGER IN
(CQ-R525EUC only)


IC801
CPU
IC501
MOTOR DRIVER
IC801
TAPE HEAD AMP
IC804
IC701
5V
IC601
CD-SERVO
IC604
CD-DSP
E-6195a
E-6195b
TO E-6184 CP501
TO HEAD
NOTE:
• Voltage measurements are with respec to ground, with a digital voltmeter with input set for normal operation, no signal applied 14.4V DC power supply.
• Exact value determined by production process. This schematic diagram is the latest at the time of printing and subject to change without notice. Replace same value as original parts.
• Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
The following symbols are shown on the schematic diagram:
A/B
AGC
10V
8V
5V
IFB
AM
TAPE
CD
AUDIO
(L, R)
(L, R)
(L, R)
(L, R)
(L, R)
*Bias color printed names and circuits are only for CA-R5EEUC


IC601 YEAM17703E15
IC6C1 CPU
IC701 5V
IC700 10V
IC701 AN78N05
IC700 AN7810
IC602 BUFFER-GATE
IC702 POWER-CNT
E-2533AD
CD CHANGER IN (CD-RB2SEUC only)
CN701 16P CONNECTOR
1. NC
2. Power⊕12V ACC
3. GND
4. Rear Left Speaker ⊕
5. Rear Left Speaker ⊖
6. Rear Right Speaker ⊖
7. Rear Right Speaker ⊕
8. NC
9. NC
10. Front Right Speaker⊕
11. Front Right Speaker⊖
12. Front Left Speaker⊕
13. Front Left Speaker⊖
14. Motor Antenna Relay Control
15. Back Up⊕12V
16. NC
NOTE:
• Voltage measurements are with respect to ground, with a digital voltmeter, with controls set for normal operation, no signal applied 14.4V DC power supply.
• Exact value determined by production process. This schematic diagram is the latest at the time of printing and subject to change without notice. Replace same value as original parts.
• Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
To E-8184 CP601

WIRING DIAGRAM (MAIN / TAPE PLAYER BLOCK) MODELS CQ-R525EUC / R520E



Q241	
B	0V
C	0V
E	0V

Q716	
B	0V
C	5.0V
E	5.0V

Q341	
B	0V
C	0V
E	0V

Q717	
B	0.9V
C	0V
E	0V

Q706	
B	0V
C	8.0V
E	8.4V

Q507	
B	7.7V
C	12.9V
E	6.6V

Q707	
B	0V
C	8.0V
E	8.4V

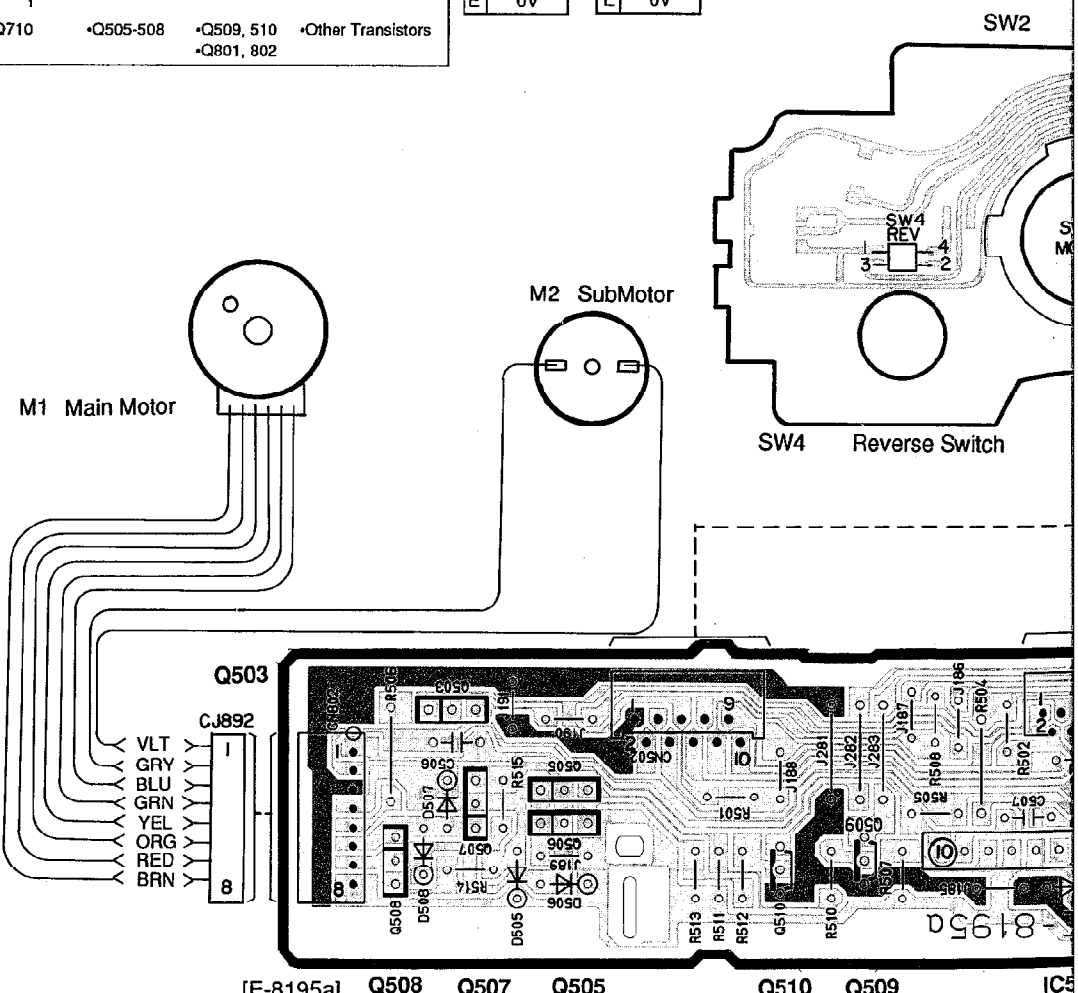
Q508	
B	7.7V
C	7.0V
E	6.6V

Q505	
B	12.2V
C	12.9V
E	13.0V

Q635	
B	0V
C	0V
E	0V

Q801	
B	0V
C	0V
E	0V

Q711	
B	4.6V
C	0V
E	0V



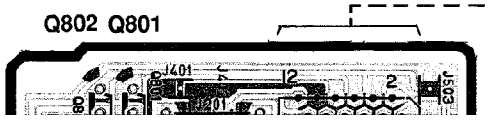
Q630	
B	4.7V
C	0V
E	5.0V

Q710	
B	12.3V
C	13.1V
E	13.2V

IC205			
1	5.0V	17	4.2V
2	0V	18	4.2V
3	4.2V	19	8.3V
4	4.2V	20	4.2V
5	4.2V	21	4.2V
6	4.2V	22	4.2V
7	4.2V	23	4.2V
8	4.2V	24	-
9	-	25	4.2V
10	4.2V	26	4.2V
11	4.2V	27	4.2V
12	8.3V	28	4.2V
13	4.2V	29	4.2V

Q509	
B	4.6V
C	0V
E	0V

IC501			
1	0V	6	4.1V

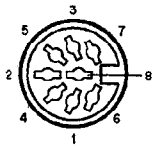


Q717
0.9V
0V
0V

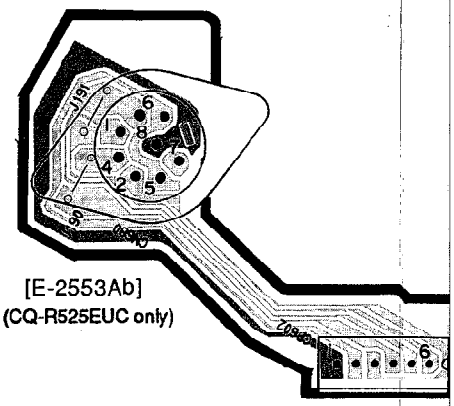
Q802	
B	4.7V
C	0V
E	0V

Q508
7.7V
7.0V
6.6V

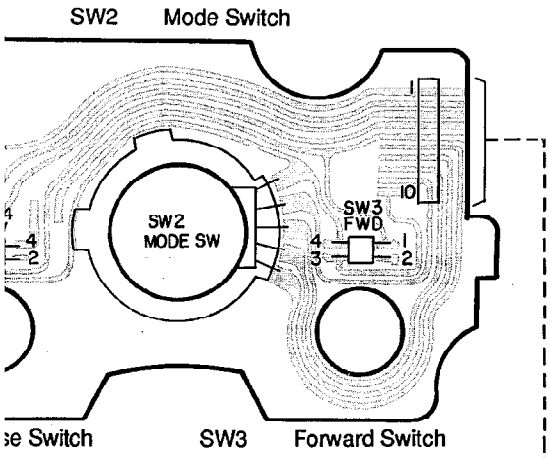
CN680 8P CONNECTOR
(CQ-R525EUC only)

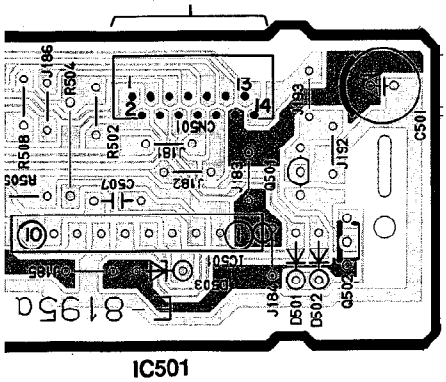


1. DATA
2. CLK
3. ACC
4. STB
5. REMOTE
6. ACC
7. NC
8. GND



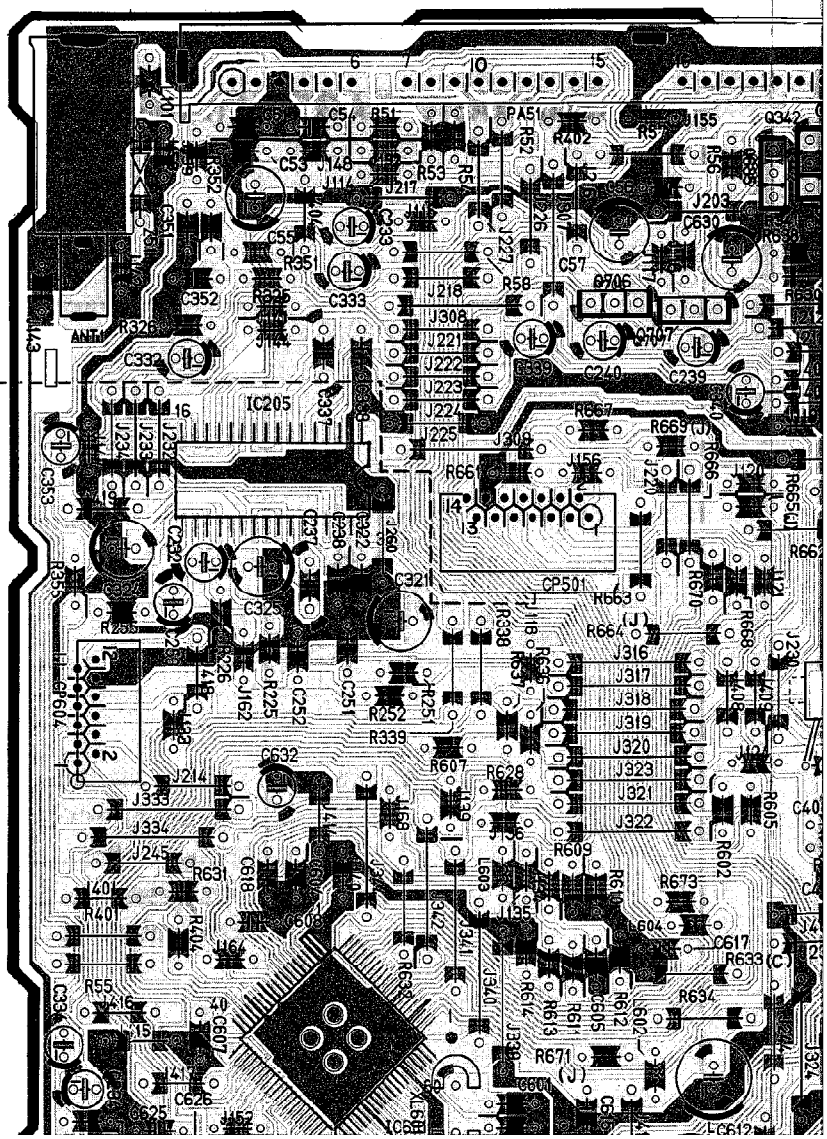
[E-2553Ab]
(CQ-R525EUC only)



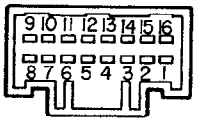


IC501

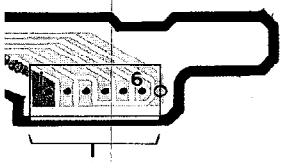
IC205

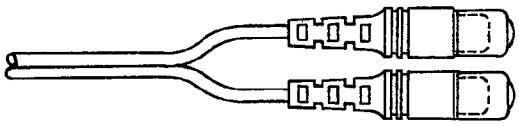


CN701 16P CONNECTOR



1. NC
2. Power⊕12V ACC
3. GND
4. Rear Left Speaker ⊖
5. Rear Left Speaker ⊕
6. Rear Right Speaker ⊖
7. Rear Right Speaker ⊕
8. NC
9. NC
10. Front Right Speaker⊕
11. Front Right Speaker⊖
12. Front Left Speaker ⊕
13. Front Left Speaker ⊖
14. Motor Antenna Relay Control
15. Back Up⊕12V
16. NC

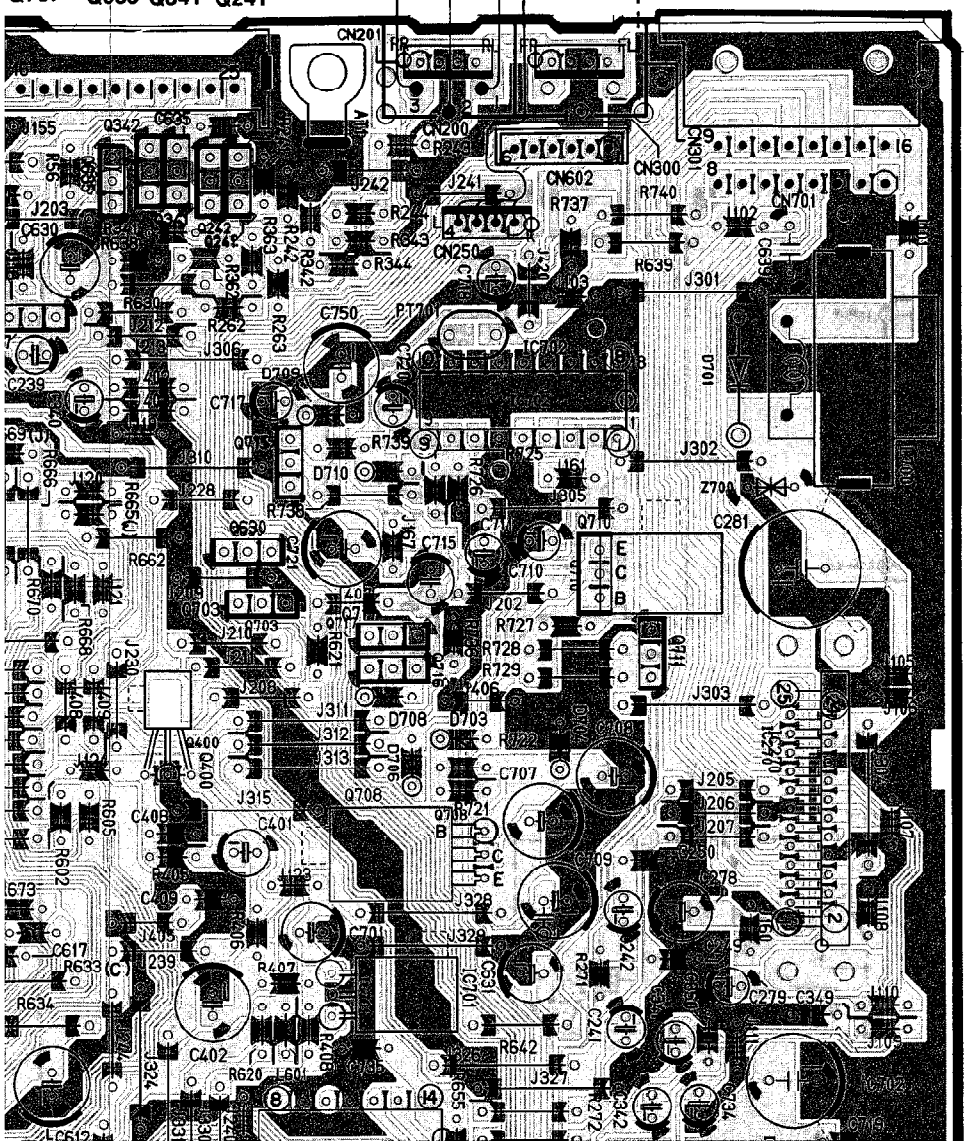




CD CHANGER IN
(CQ-R525EUC only)

PRE OUT

Q707 Q635 Q341 Q241



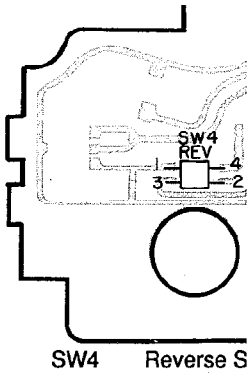
IC602			
1	5.0V	8	0V
2	0V	9	5.0V
3	0V	10	0V
4	-	11	5.0V
5	0V	12	0V
6	-	13	5.0V
7	0V	14	5.0V

IC702			
1	13.2V	10	0V
2	8.9V	11	0V
3	-	12	0V
4	4.6V	13	0V
5	5.0V	14	0V
6	0V	15	0V
7	5.0V	16	0V
8	3.7V	17	0V
9	12.6V	18	0V

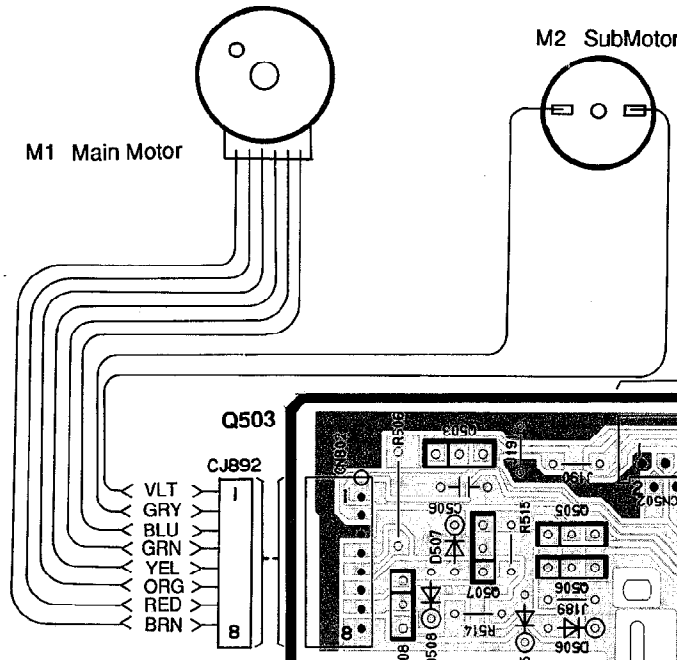
IC701	
1	10.0V
2	0V
3	5.0V

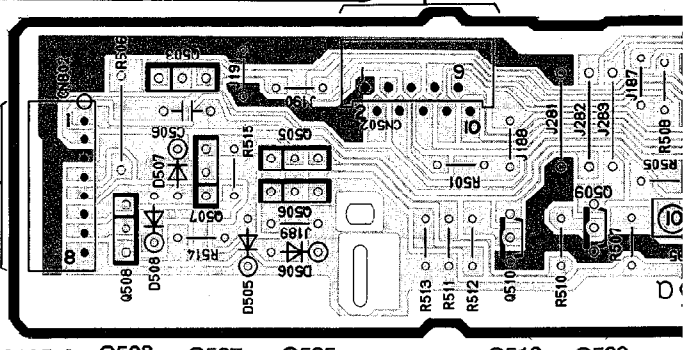
IC700	
1	12.3V
2	0V
3	10.0V

PA51			
AM		FM	
1	0V	1	0V
2	0V	2	0V
3	0V	3	0V



SW4 Reverse S





[E-8195a]

Q630	
B	4.7V
C	0V
E	5.0V

Q710	
B	12.3V
C	13.1V
E	13.2V

IC205			
1	5.0V	17	4.2V
2	0V	18	4.2V
3	4.2V	19	8.3V
4	4.2V	20	4.2V
5	4.2V	21	4.2V
6	4.2V	22	4.2V
7	4.2V	23	4.2V
8	4.2V	24	-
9	-	25	4.2V
10	4.2V	26	4.2V
11	4.2V	27	4.2V
12	8.3V	28	4.2V
13	4.2V	29	4.2V
14	4.2V	30	4.2V
15	4.2V	31	8.3V
16	4.2V	32	5.0V

IC801			
1	4.0V	15	4.1V
2	4.0V	16	2.3V
3	4.1V	17	4.1V
4	4.1V	18	4.1V
5	2.3V	19	4.3V
6	0.2V	20	4.3V
7	0V	21	4.1V
8	0V	22	4.1V
9	0V	23	4.0V
10	0.7V	24	4.1V
11	0V	25	4.1V
12	4.3V	26	4.1V
13	4.1V	27	4.1V
14	4.1V	28	4.1V

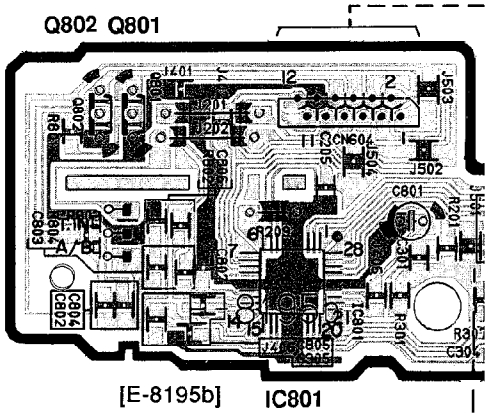
Q509	
B	4.6V
C	0V
E	0V

IC501			
1	0V	6	4.1V
2	0.5V	7	13.0V
3	0.7V	8	13.0V
4	3.6V	9	0.7V
5	4.1V	10	0.5

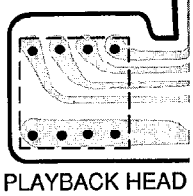
IC270			
1	0V	13	0V
2	0V	14	6.5V
3	6.6V	15	6.5V
4	4.7V	16	6.5V
5	6.6V	17	6.6V
6	13.2V	18	0V
7	6.6V	19	6.6V
8	0V	20	13.2V
9	6.6V	21	6.7V
10	6.6V	22	5.0V
11	6.5V	23	6.7V
12	6.5V	24	0V
		25	-

Q400	
G	1.3V
S	0V
D	3.2V

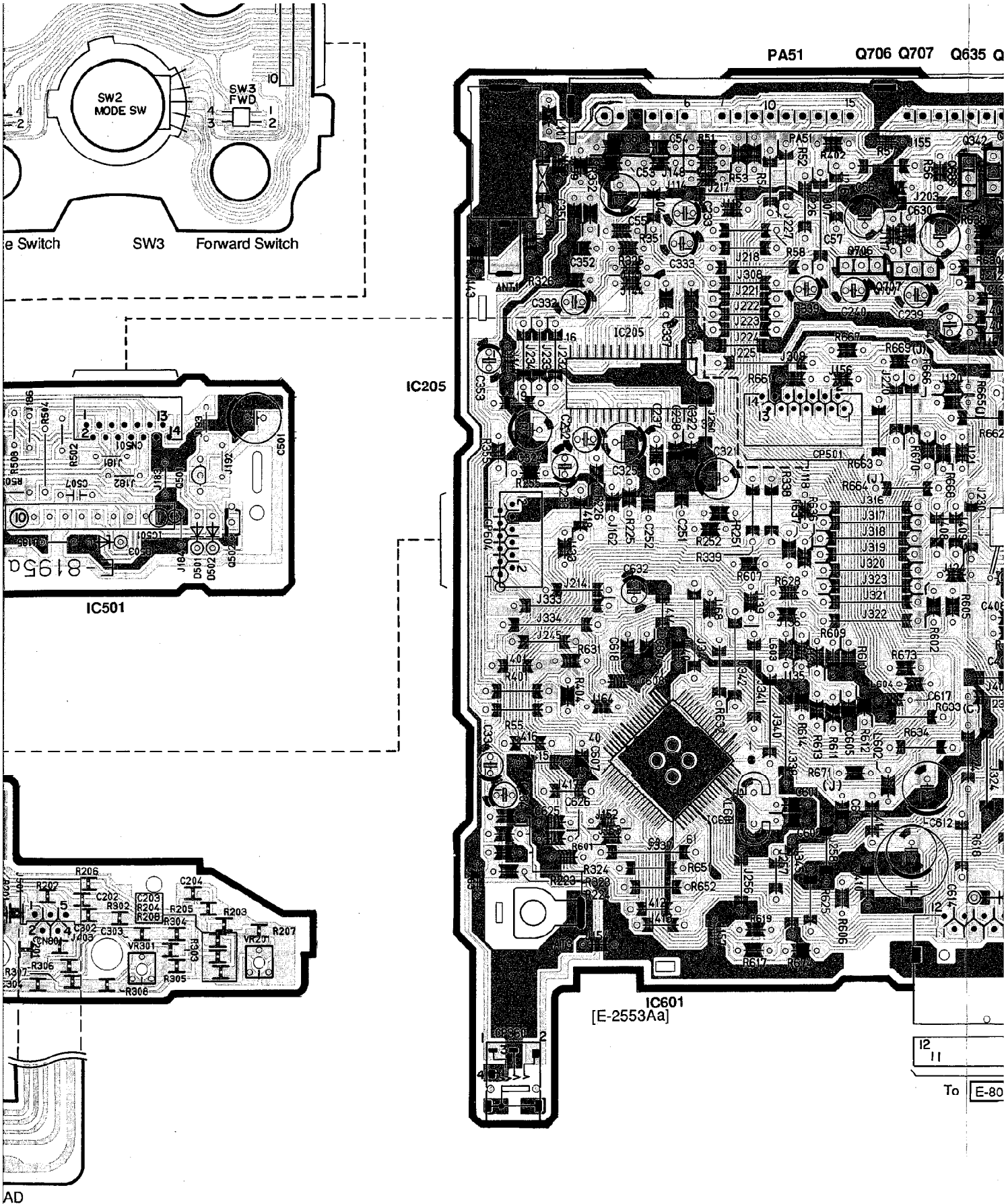
Q708	
B	8.9V
C	12.3V
E	8.4V

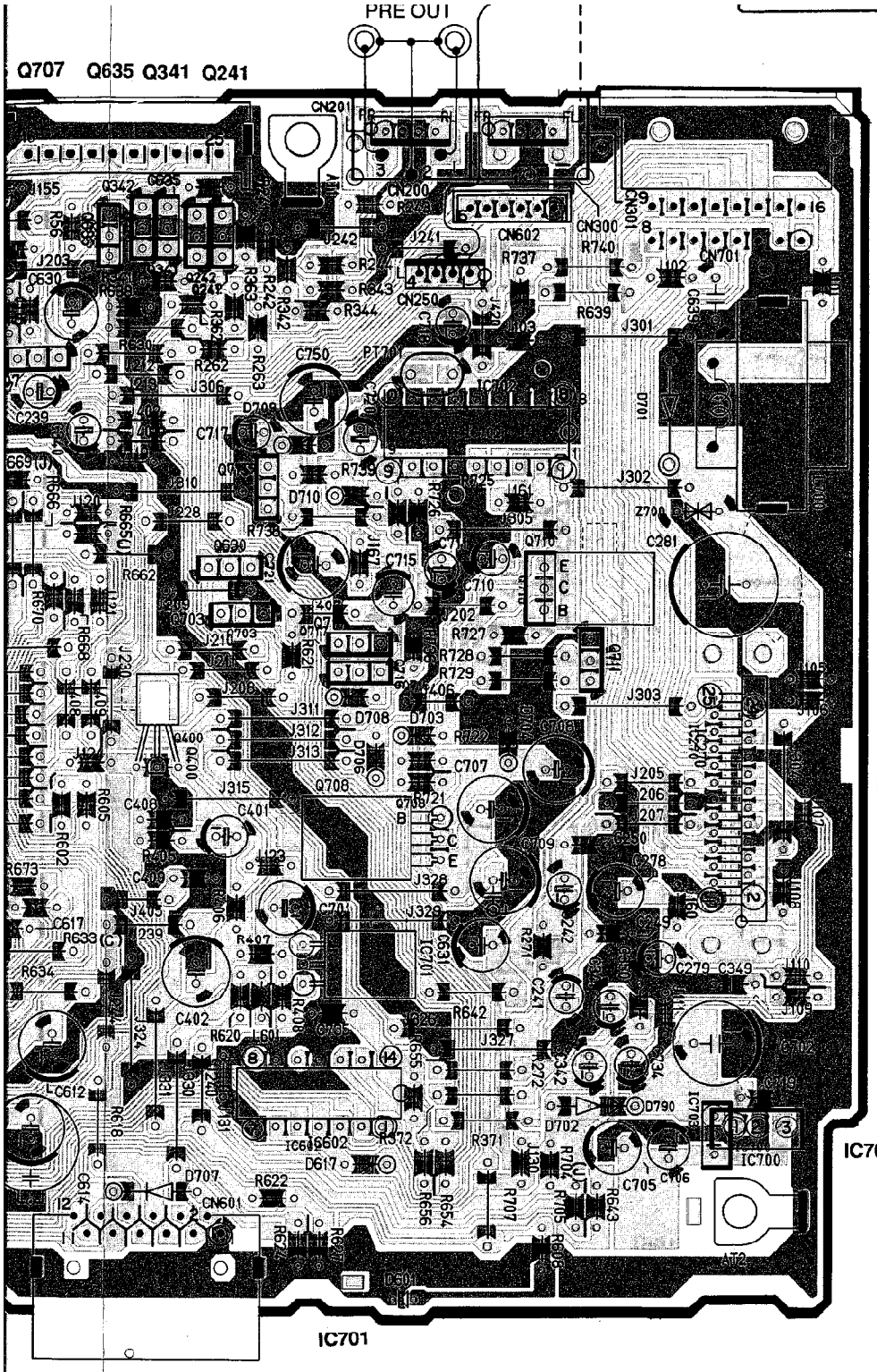


[E-8195b]



PLAYBACK HEAD


SW2
MODE SW
SW3
FWD
e Switch
SW3
Forward Switch
PA51
Q706 Q707
Q635 Q
IC205
IC501
IC601
[E-2553Aa]
To E-80
AD



CD CHANGER IN
(CQ-R525EUC only)

IC602			
1	5.0V	8	0V
2	0V	9	5.0V
3	0V	10	0V
4	-	11	5.0V
5	0V	12	0V
6	-	13	5.0V
7	0V	14	5.0V

IC702			
1	13.2V	10	0V
2	8.9V	11	0V
3	-	12	0V
4	4.6V	13	0V
5	5.0V	14	0V
6	0V	15	0V
7	5.0V	16	0V
8	3.7V	17	0V
9	12.6V	18	0V

IC701	
1	10.0V
2	0V
3	5.0V

IC700	
1	12.3V
2	0V
3	10.0V

PA51			
AM		FM	
1	0V	1	0V
2	0V	2	0V
3	0V	3	0V
4	3.2V	4	1.2V
5	0V	5	8.0V
6	0V	6	2.6V
7	0V	7	3.3V
8	4.7V	8	4.7V
9	0.2V	9	0V
10	0V	10	0V
11	0V	11	0V
12	0V	12	1.0V
13	0V	13	3.5V
14	0V	14	3.5V
15	0V	15	0V
16	0V	16	0V
17	0V	17	0V
18	3.2V	18	1.2V
19	2.0V	19	0V
20	8.0V	20	0V
21	0V	21	0V
22	0V	22	0V
23	0V	23	0V
24	0V	24	0V
25	4.2V	25	4.2V

Q503	
B	4.7V
C	0.5V
E	5.0V

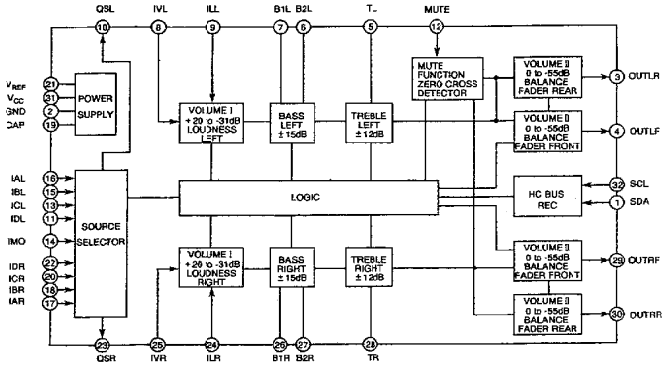
Q703	
B	0V
C	6.0V
E	0V

Q510	
B	0V
C	12.9V
E	0V

Q715	
B	5.7V
C	1.8V
E	5.0V

IC BLOCK DIAGRAMS

■ IC205 YEAMEA6320TT [E-2553A]

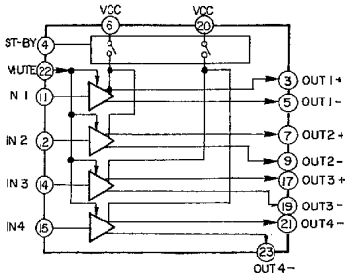


<CQ-R525EUC>

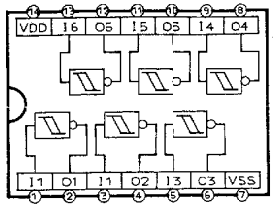
■ IC270 YEAMTDA7384 [E-2553A]

<CQ-R520EUC>

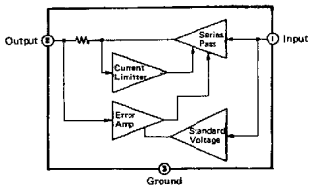
■ IC270 YEAMTDA7385 [E-2553A]



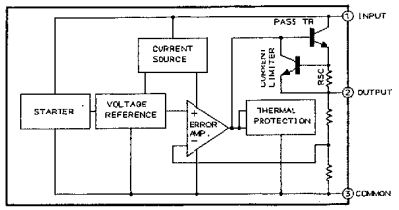
■ IC602 MN4584B [E-2553A]



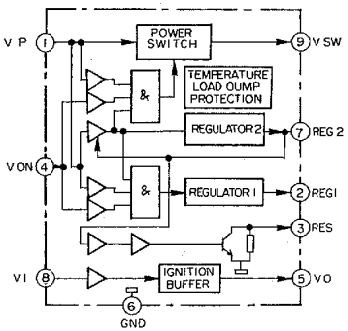
■ IC700 AN7710 [E-2553A]



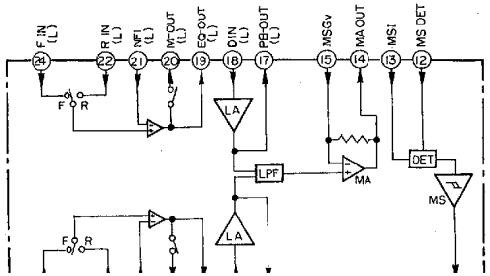
■ IC701 AN78N05 [E-2553A]



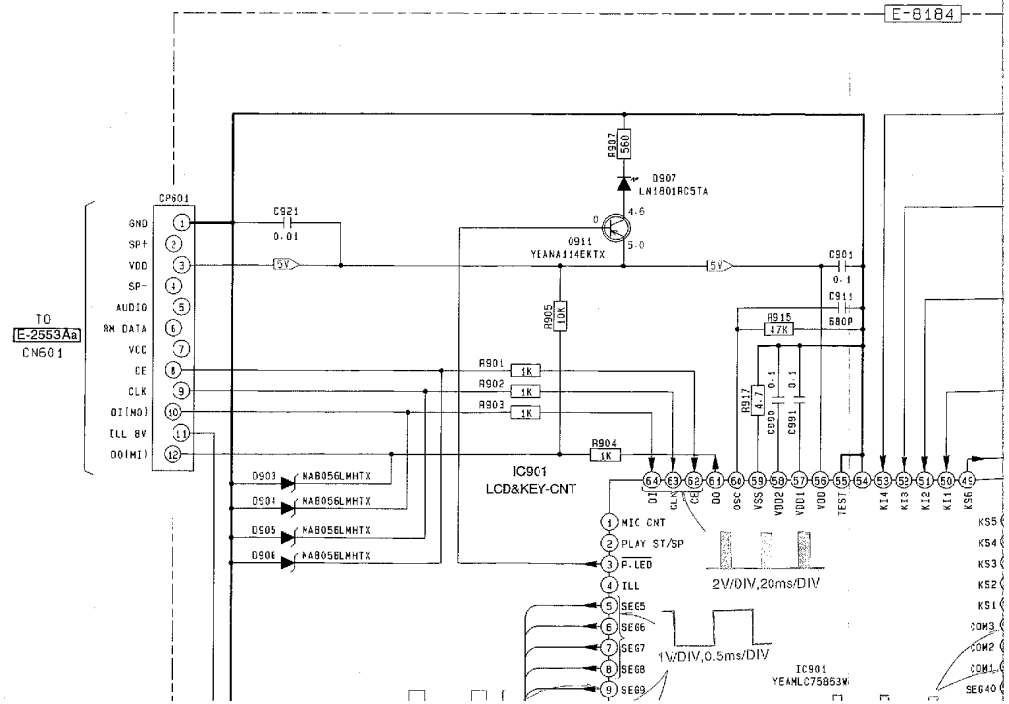
■ IC702 YEAMTDA3603P [E-2553A]



■ IC801 YEAMHA12198 [E-8195]



SCHEMATIC DIAGRAM (DISPLAY BLOCK) MODELS CQ-R525EUC / R520EUC



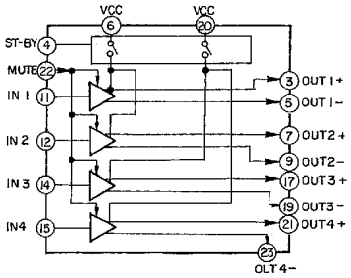
ALIGNME

■ CAUTIONS

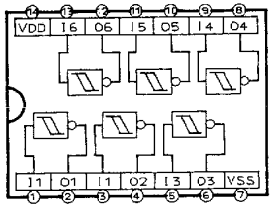
1. Move th

※ Mc
loa

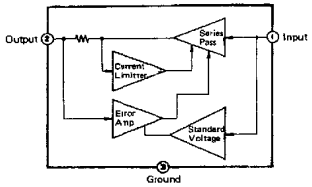
<CQ-R525EUC>
■ IC270 YEAMTDA7384 [E-2553A]
<CQ-R520EUC>
■ IC270 YEAMTDA7385 [E-2553A]



■ IC602 MN4584B [E-2553A]



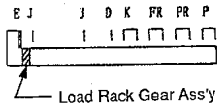
■ IC700 AN7710 [E-2553A]



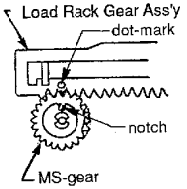
ALIGNMENT INSTRUCTIONS

■CAUTIONS ON ASSEMBLING THE MS GEAR OF THE TAPE DECK

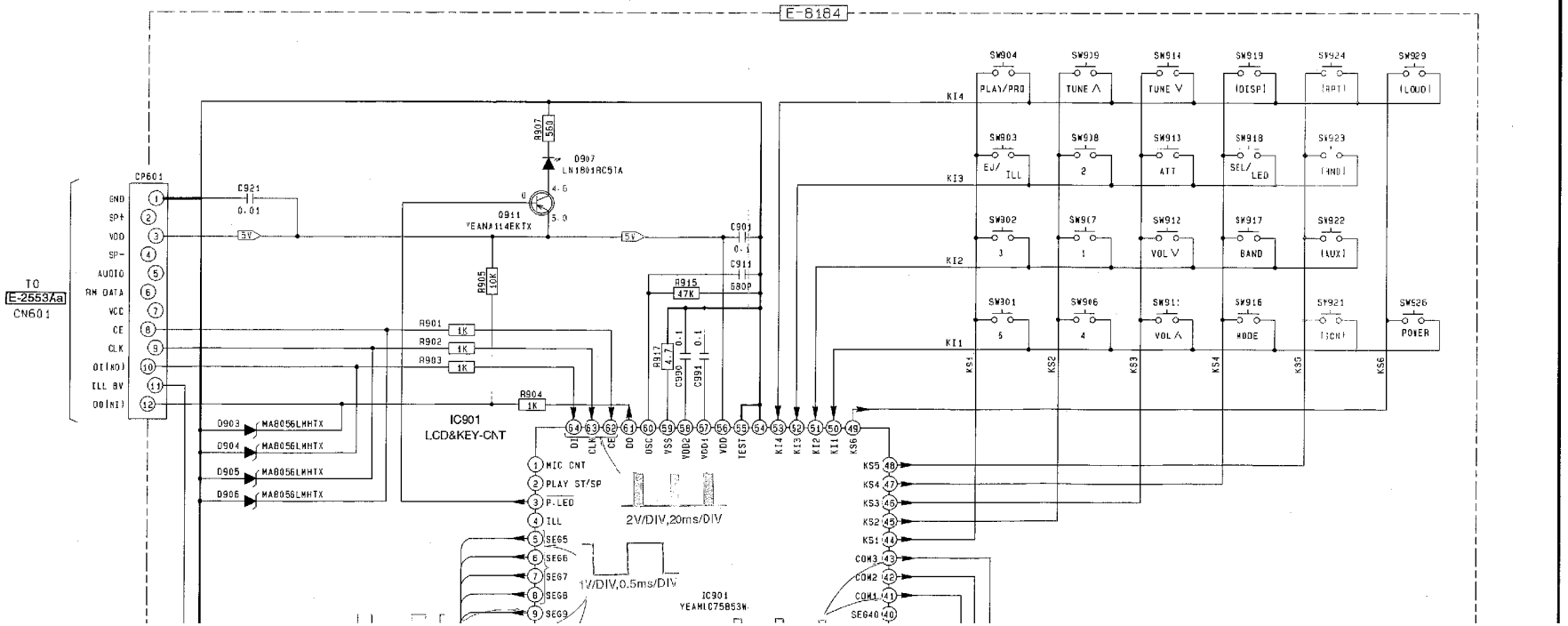
1. Move the load rack gear ass'y to EJ-Position.
   ※ Move the mode position of the loading plate to EJ-position.



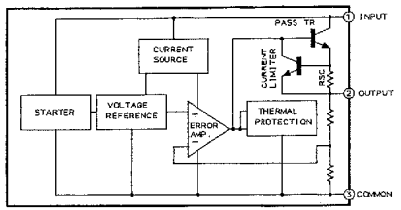
2. Align the notch of the MS gear to the dot-mark on the load rack gear ass'y and insert the MS gear to the shaft.



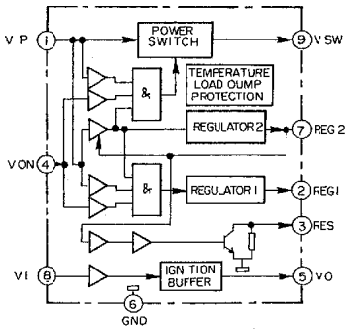
SCHEMATIC DIAGRAM (DISPLAY BLOCK) MODELS CQ-R525EUC / R520EUC



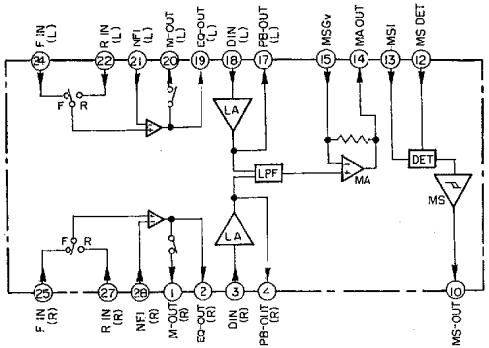
■ IC701 AN78N05 [E-2553A]



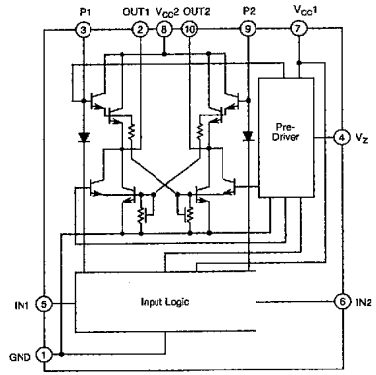
■ IC702 YEAMTDA3603P [E-2553A]



■ IC801 YEAMHA12198 [E-8195]

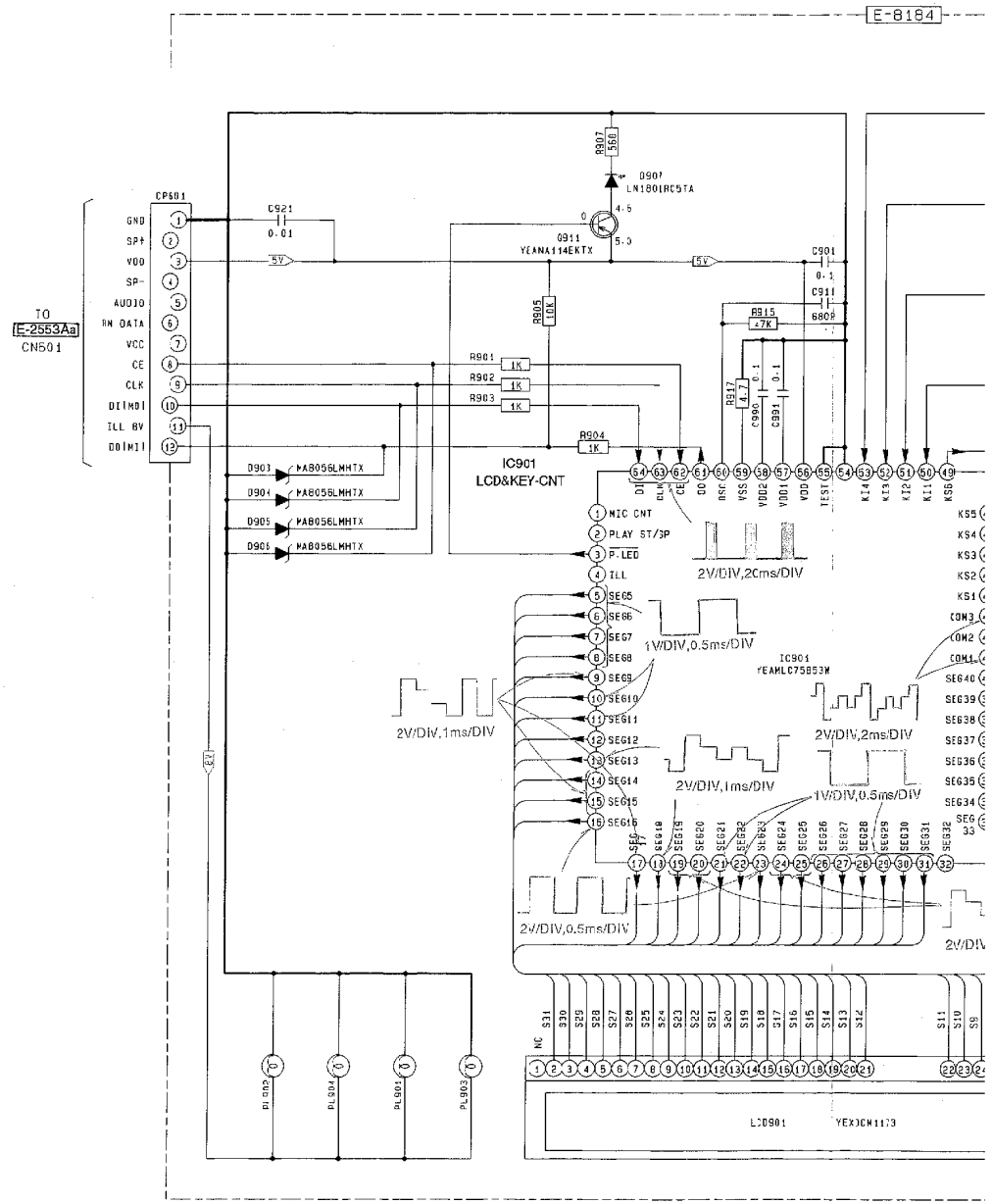


■ IC501 YEAMLB1641 [E-8195]

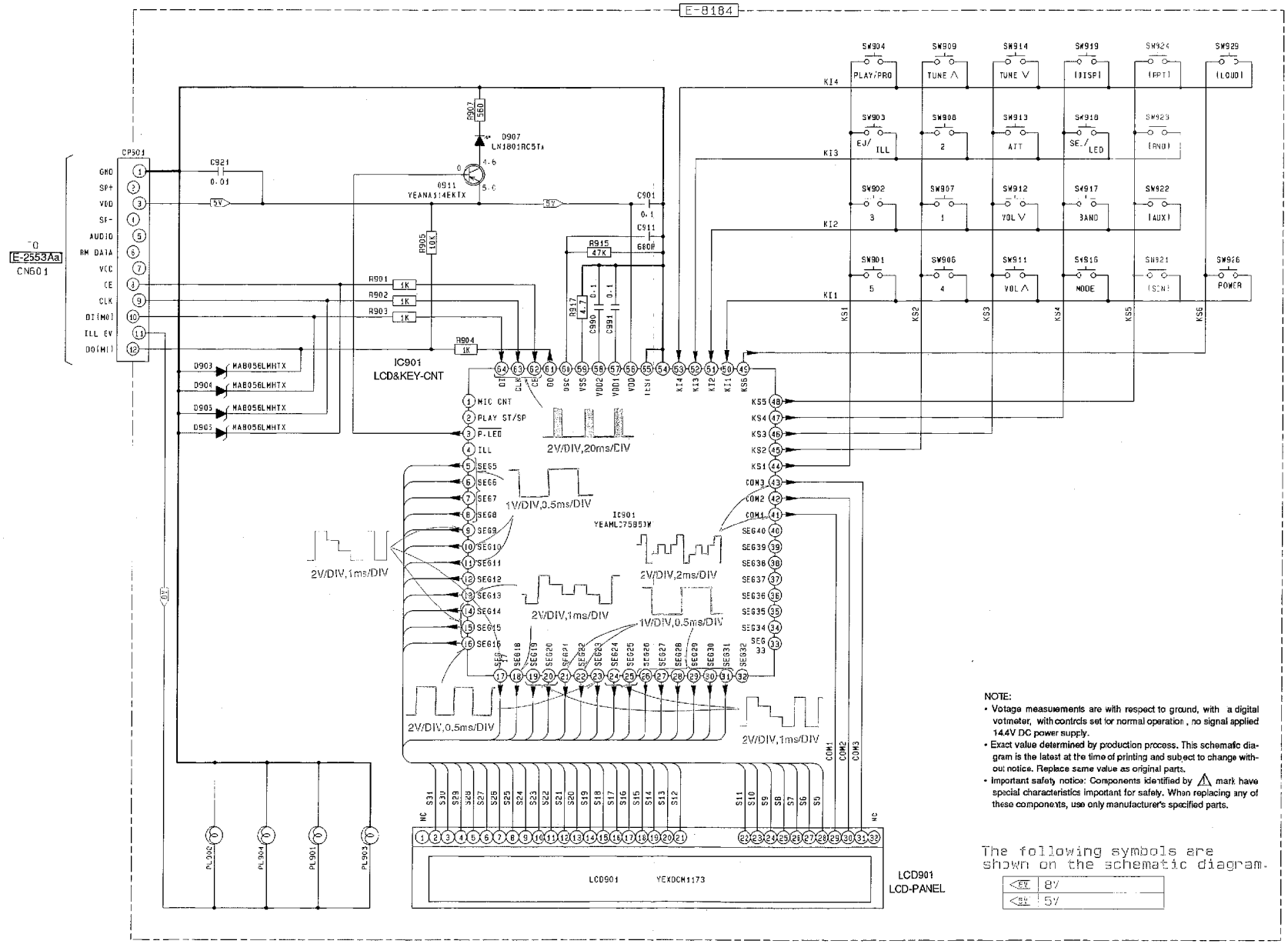


Ground

SCHEMATIC DIAGRAM (DISPLAY BLOCK) MODELS CQ-R525EUC / R520EUC



SCHEMATIC DIAGRAM (DISPLAY BLOCK) MODELS CQ-R525EUC / R520EUC



NOTE:

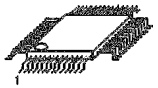
- Votage measuements are with respect to ground, with a digital votmeter, with controls set for normal operation , no signal applied 14.4V DC power supply.
- Exact value determined by production process. This schemafic diagram is the latest at the time of printing and subject to change without notice. Replace same value as original parts.
- Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

The following symbols are shown on the schematic diagram.

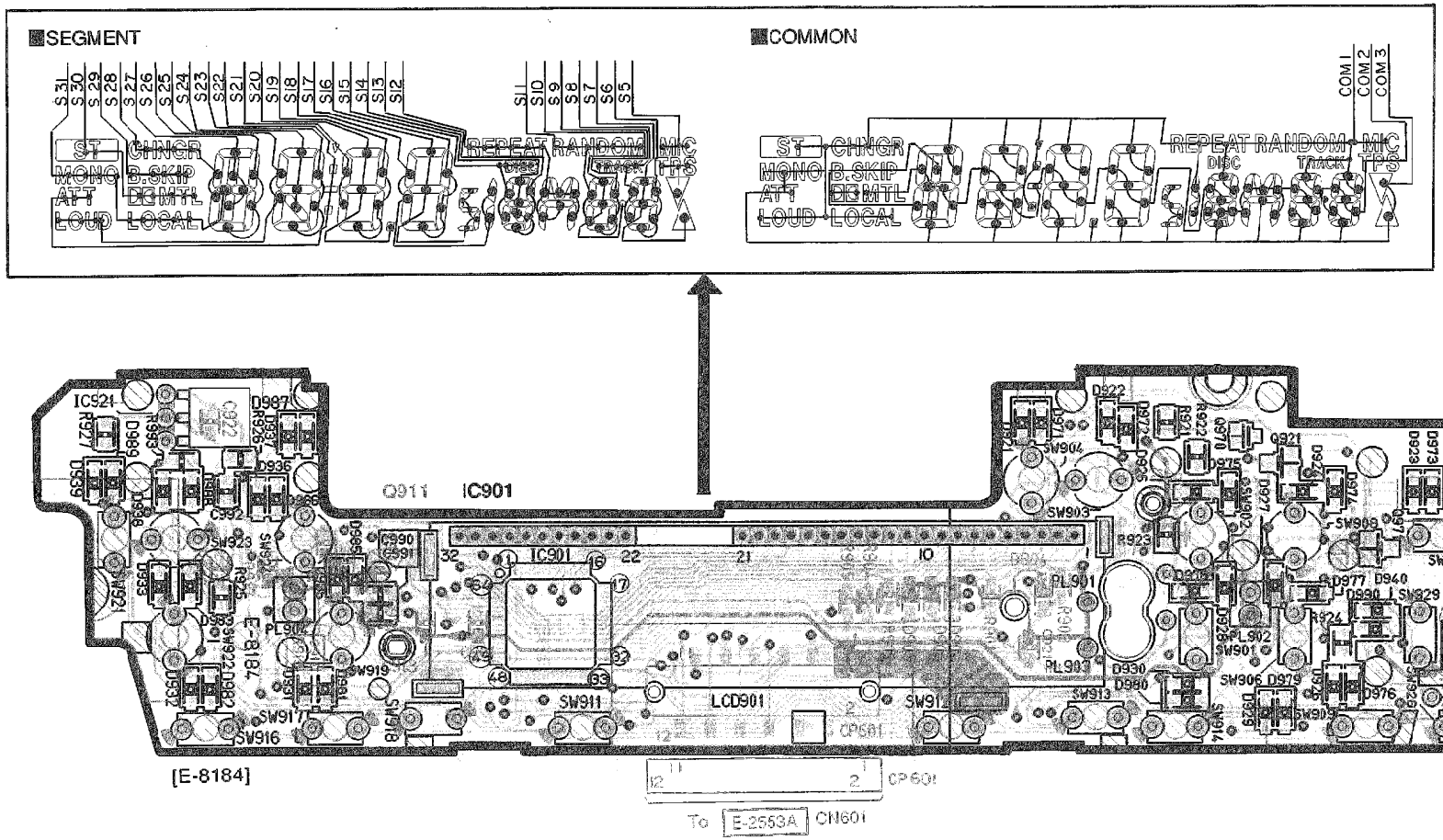
<8V	8V
<5V	5V

WIRING DIAGRAM (DISPLAY BLOCK) MODELS CQ-R525EUC / R520EUC

ICs & Transistors



SW901	Preset 5 Switch	SW909	Tuning / Seek / Track UP Switch (CQ-R525EUC only)	SW914	Tuning / Seek / Track Down Switch (CQ-R525EUC only)	SW919	DISP Switch
SW902	Preset 3 Switch					SW921	Scan Switch (CQ-R525EUC only)
SW903	Eject / Illumination Switch		Tuning / Seek UP Switch (CQ-R520EUC only)		Tuning / Seek DOWN Switch (CQ-R520EUC only)	SW922	AUX Switch
SW904	Play / Program Switch					SW923	Random Switch (CQ-R525EUC only)
SW906	Preset 4 Switch	SW911	Volume Down Switch	SW916	Mode Switch	SW924	Repeat Switch (CQ-R525EUC only)
SW907	Preset 1 Switch	SW912	Volume UP Switch	SW917	Band Switch	SW926	Power Switch
SW908	Preset 2 Switch	SW913	ATT Switch	SW918	SEL / LED Switch	SW929	Loudness Switch



Replacement Parts List
Models No. CQ-R525EUC / R520EUC

NOTE:
1. Be sure to make your orders of replacement parts acording to this list.
2. Important safety notice: Components, identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Next to the Ref. No. in the parts list is a location key, to show the general location of the parts shown in the exploded drawing, as in a road map.
4. The marking (RTL) indicates that Retention Time is limited for this item. After the discontinueation of assembly in production, the item will continue to retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Ref. No.	Parts No.	Part Code	Parts Name & Demension	Psc set	Remarks
ICs AND TRANSISTORs					
[E-2553A]	**MAIN BLOCK**				
IC205	YEAMEA6320TT		IC	1	
IC270	YEAMTDA7384		IC	1	R525EUC ONLY
IC270	YEAMTDA7385		IC	1	R520EUC ONLY
IC601	YEAM17708E16		IC	1	
IC602	MN4584B		IC	1	R525EUC ONLY
IC700	AN7710		IC	1	
IC701	AN78N05		IC	1	
IC702	YEAMTDA3603P		IC	1	
PA51	YGAU03SMX07		Electronic Tuner	1	
Q241, 341	YEANC323TLT		Transistor	2	
Q400	YEAN2SK583		Transistor	1	
Q630	YEANA114ELT		Transistor	1	
Q635	YEANA114TLT		Transistor	1	
Q703	YEANC144WLT		Transistor	1	
Q706, 707	YEANB123YLT		Transistor	2	
Q708	2SD2139TA		Transistor	1	
Q710	2SB929PQ		Transistor	1	
Q711	YEANC114YLT		Transistor	1	
Q715	2SD1994ATA		Transistor	1	
Q716	YEANA144ELT		Transistor	1	
Q717	YEANC113ZLT		Transistor	1	

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
[E-8184]	**DISPLAY BLOCK**				
IC901	YEAMLC75853W		IC	1	
Q911	YEANA114EKTX		Transistor	1	
[E-8195]	**TAPE BLOCK**				
IC501	YEAMLB1641		IC	1	
IC801	YEAMHA12198		IC	1	
Q503	YEANA114ELT		Transistor	1	
Q505, 506	2SB643		Transistor	2	
Q507, 508	2SD638		Transistor	2	
Q509, 510	UN4211T		Transistor	2	
Q801, 802	YEANDTC144ST		Transistor	2	
DIODEs					
[E-2553A]	**MAIN BLOCK**				
D701	YEADDSA3A2		Diode	1	
D702	YEADDSM1D2T7		Diode	1	
D703	YEAD11ES2T		Diode	1	
D704	YEADRD91JS1T		Diode	1	
D706	MA700		Diode	1	
D707	YEADDSM1D2T7		Diode	1	
D708	MA723TA		Diode	1	
D709	YEADRD56JB3		Diode	1	
D710	MA165TA		Diode	1	

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
DISPLAY BLOCK					
D903 to 906	MA8056LMHTX		Diode	4	
D907	LN01801RC5TA		LED	1	
[E-8195]	**TAPE BLOCK**				
D503	YEADRD39ES1T		Diode	1	
D505 to 508	YEAD11ES2T		Diode	4	
CAPACITORs					
[E-2553A]	**MAIN BLOCK**				
C51, 53	YEE05Y103N		Ceramic, 0.01MFD 50WV	2	
C54	YEE05Y103N		Ceramic, 0.01MFD 50WV	1	
C55	ECEA1AU470I		Electrolytic, 47MFD 10WV	1	
C56	YEE05Y103N		Ceramic, 0.01MFD 50WV	1	
C57	ECA1CSA470I		Electrolytic, 47MFD 16WV	1	
C232	ECA1CSA100I		Electrolytic, 10MFD 16WV	1	R525EUC ONLY
C233	ECA1HSA3R3I		Electrolytic, 3.3MFD 50WV	1	
C234	ECEA1VK3R3I		Electrolytic, 3.3MFD 50WV	1	
C237	ECQV1H333JL2		Plastic Film, 0.033MFD 50WV	1	
C238	YEE05X562M		Ceramic, 0.0056MFD 16WV	1	
C239, 240	ECA1HSA3R3I		Electrolytic, 3.3MFD 50WV	2	
C241, 242	ECEA1HKR47I		Electrolytic, 0.47MFD 50WV	2	
C249, 250	YEE05X222M		Ceramic, 0.0022MFD 16WV	2	
C253	ECA1CSA100I		Electrolytic, 10MFD 16WV	1	
C278	ECEA1AU101I		Electrolytic, 100MFD 10WV	1	
C279	ECEA1HK2R2I		Electrolytic, 2.2MFD 50WV	1	R525EUC ONLY
C279	ECEA1HKR47I		Electrolytic, 0.47MFD 50WV	1	R520EUC ONLY

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
C281	ECA1CDT472Y		Electrolytic, 4700MFD 16WV	1	
C321	ECA1ASA330I		Electrolytic, 33MFD 10WV	1	
C322	YEE05Y103N		Ceramic, 0.01MFD 50WV	1	
C324	ECEA1AU470I		Electrolytic, 47MFD 10WV	1	
C325	ECA0JSA101I		Electrolytic, 100MFD 6.3WV	1	
C332	ECA1CSA100I		Electrolytic, 10MFD 16WV	1	R525EUC ONLY
C333	ECA1HSA3R3I		Electrolytic, 3.3MFD 50WV	1	
C334	ECEA1VK3R3I		Electrolytic, 3.3MFD 50WV	1	
C337	ECQV1H333JL2		Plastic Film, 0.033MFD 50WV	1	
C338	YEE05X562M		Ceramic, 0.0056MFD 16WV	1	
C339, 340	ECA1HSA3R3I		Electrolytic, 3.3MFD 50WV	2	
C341, 342	ECEA1HKR47I		Electrolytic, 0.47MFD 50WV	2	
C349, 350	YEE05X222M		Ceramic, 0.0022MFD 16WV	2	
C353	ECEA1CK100I		Electrolytic, 10MFD 16WV	1	
C401	ECA1HSA4R7I		Electrolytic, 4.7MFD 50WV	1	
C402	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	
C408, 409	YEU05B102K		Ceramic, 0.001MFD 50WV	2	
C601, 602	YEU05SL150J		Ceramic, 15PF 50WV	2	
C604, 605	YEE05Y103N		Ceramic, 0.01MFD 50WV	2	
C608	YEE05Y103N		Ceramic, 0.01MFD 50WV	1	
C612, 614	ECEA0JKS331I		Electrolytic, 330MFD 6.3WV	2	
C615, 617	YEE05Y103N		Ceramic, 0.01MFD 50WV	2	
C618	YEU05SL560J		Ceramic, 56PF 50WV	1	
C625	YEU05B101K		Ceramic, 100PF 50WV	1	
C626	YEU05SL680J		Ceramic, 68PF 50WV	1	
C630	ECA0JSA470I		Electrolytic, 47MFD 6.3WV	1	
C631	ECEA1AK330I		Electrolytic, 33MFD 10WV	1	
C632	ECA1CSA100I		Electrolytic, 10MFD 16WV	1	
C701	ECA0JSA101I		Electrolytic, 100MFD 6.3WV	1	
C702	ECEA1CK100B		Electrolytic, 10MFD 16WV	1	
C705	ECEA1AU470I		Electrolytic, 47MFD 10WV	1	
C707, 708	ECEA1AKS221I		Electrolytic, 220MFD 10WV	2	
C709	ECEA1CKS101I		Electrolytic, 100MFD 16WV	1	
C710	ECA1CSA470I		Electrolytic, 47MFD 16WV	1	

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
C711	ECA1CSA100I		Electrolytic, 10MFD 16WV	1	
C715	ECA0JSA470I		Electrolytic, 47MFD 6.3WV	1	
C717	ECA1CSA100I		Electrolytic, 10MFD 16WV	1	
C718	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1	
C719	YEE05Y103N		Ceramic, 0.01MFD 50WV	1	
C720	ECA1HSA010I		Electrolytic, 1MFD 50WV	1	
C721	ECEA1CKS101I		Electrolytic, 100MFD 16WV	1	
C734	ECEA1HK010I		Electrolytic, 1MFD 50WV	1	
C735	YEE05Y103N		Ceramic, 0.01MFD 50WV	1	R525EUC ONLY
R633	YEE05Y103N		Ceramic, 0.01MFD 50WV	1	

[E-8184] **DISPLAY BLOCK**

C901	YECUS1E104ZF		Ceramic, 0.1MFD 25WV	1	
C911	YECUS1H681JM		Ceramic, 680PF 50WV	1	
C921, 990	YECUS1E104ZF		Ceramic, 0.1MFD 25WV	2	
C991, 992	YECUS1E104ZF		Ceramic, 0.1MFD 25WV	2	

[E-8195] **TAPE BLOCK**

C201, 202	YECUS1H331JM		Ceramic, 330PF 50WV	2	
C203	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C204	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C301, 302	YECUS1H331JM		Ceramic, 330PF 50WV	2	
C303	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C304	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C501	ECEA1CKS101I		Electrolytic, 100MFD 16WV	1	
C506	ECQV1H104JL2		Plastic Film, 0.1MFD 50WV	1	
C507	YEE05Y103N		Ceramic, 0.01MFD 50WV	1	
C801	ECA1HSA010I		Electrolytic, 1MFD 50WV	1	
C802	YECUS1E223KX		Ceramic, 0.022MFD 25WV	1	
C803	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
C804	YECUS1C334KX		Ceramic, 0.33MFD 16WV	1	
C805	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C806	YECUS1E223KX		Ceramic, 0.022MFD 25WV	1	
C807	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	

RESISTORs

[E-2553A] **MAIN BLOCK**

C252	ERDS2TJ392		Carbon, 3.9k ohms 0.25W	1	
C352	ERDS2TJ392		Carbon, 3.9k ohms 0.25W	1	
L602	ERDS2TJ223		Carbon, 22k ohms 0.25W	1	
R51	ERDS2TJ221		Carbon, 220 ohms 0.25W	1	
R52	ERD25TJ473		Carbon, 47k ohms 0.25W	1	
R53, 54	ERDS2TJ393		Carbon, 39k ohms 0.25W	2	
R56	ERDS2TJ102		Carbon, 1k ohms 0.25W	1	
R57	ERD25TJ102		Carbon, 1k ohms 0.25W	1	
R58	ERD25TJ223		Carbon, 22k ohms 0.25W	1	
R223	ERDS2TJ153		Carbon, 15k ohms 0.25W	1	
R224	ERDS2TJ682		Carbon, 6.8k ohms 0.25W	1	
R225	ERDS2TJ822		Carbon, 8.2k ohms 0.25W	1	R525EUC ONLY
R226	ERDS2TJ272		Carbon, 2.7K ohms 0.25W	1	R525EUC ONLY
R241	ERDS2TJ103		Carbon, 10k ohms 0.25W	1	
R243	ERDS2TJ561		Carbon, 560 ohms 0.25W	1	
R255	ERDS2TJ682		Carbon, 6.8k ohms 0.25W	1	
R263, 271	ERDS2TJ101		Carbon, 100 ohms 0.25W	2	
R272	ERD25TJ101		Carbon, 100 ohms 0.25W	1	
R323	ERDS2TJ153		Carbon, 15k ohms 0.25W	1	
R324	ERDS2TJ682		Carbon, 6.8k ohms 0.25W	1	
R325	ERDS2TJ822		Carbon, 8.2k ohms 0.25W	1	R525EUC ONLY
R326	ERDS2TJ272		Carbon, 2.7K ohms 0.25W	1	R525EUC ONLY
R338	ERD25TJ102		Carbon, 1k ohms 0.25W	1	
R339	ERD25TJ333		Carbon, 33k ohms 0.25W	1	

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
R341	ERDS2TJ103		Carbon, 10k ohms 0.25W	1	
R343	ERDS2TJ561		Carbon, 560 ohms 0.25W	1	
R355	ERDS2TJ682		Carbon, 6.8k ohms 0.25W	1	
R363	ERDS2TJ101		Carbon, 100 ohms 0.25W	1	
R371, 372	ERD25TJ101		Carbon, 100 ohms 0.25W	2	
R401	ERD25TJ472		Carbon, 4.7k ohms 0.25W	1	
R402	ERDS2TJ472		Carbon, 4.7k ohms 0.25W	1	
R404 to 406	ERDS2TJ152		Carbon, 1.5k ohms 0.25W	3	
R407	ERDS2TJ471		Carbon, 470 ohms 0.25W	1	
R601	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	R520EUC ONLY
R602, 605	ERDS2TJ473		Carbon, 47k ohms 0.25W	2	
R606, 607	ERDS2TJ473		Carbon, 47k ohms 0.25W	2	
R609 , 610	ERDS2TJ473		Carbon, 47k ohms 0.25W	2	
R611	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	R525EUC ONLY
R612	ERDS2TJ273		Carbon, 27k ohms 0.25W	1	R525EUC ONLY
R613	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	
R617	ERDS2TJ102		Carbon, 1k ohms 0.25W	1	
R618	ERD25TJ102		Carbon, 1k ohms 0.25W	1	
R619	ERDS2TJ102		Carbon, 1k ohms 0.25W	1	
R620	ERDS2TJ100		Carbon, 10 ohms 0.25W	1	
R621, 622	ERDS2TJ102		Carbon, 1k ohms 0.25W	2	
R624	ERDS2TJ184		Carbon, 180k ohms 0.25W	1	
R625	ERD25TJ184		Carbon, 180k ohms 0.25W	1	
R628	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	
R630	ERD25TJ102		Carbon, 1k ohms 0.25W	1	
R631	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	
R632	ERD25TJ103		Carbon, 10k ohms 0.25W	1	
R634	ERD25TJ473		Carbon, 47k ohms 0.25W	1	
R636, 637	ERDS2TJ103		Carbon, 10k ohms 0.25W	2	
R638	ERDS2TJ393		Carbon, 39k ohms 0.25W	1	
R642	ERD25TJ332		Carbon, 3.3k ohms 0.25W	1	
R643	ERDS2TJ223		Carbon, 22k ohms 0.25W	1	
R651, 652	ERD25TJ102		Carbon, 1k ohms 0.25W	2	
R654 to 656	ERDS2TJ473		Carbon, 47k ohms 0.25W	3	R525EUC ONLY

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
R663	ERD25TJ103		Carbon, 10k ohms 0.25W	1	
R667, 668	ERDS2TJ102		Carbon, 1k ohms 0.25W	2	
R673, 674	ERDS2TJ102		Carbon, 1k ohms 0.25W	2	
R707	ERDS1FJ2R7		Carbon, 2.7 ohms 0.5W	1	
R721	ERDS2FJ1R0T		Carbon, 1 ohm 0.25W	1	
R722	ERDS2TJ102		Carbon, 1k ohms 0.25W	1	
R725	ERDS2TJ823		Carbon, 82k ohms 0.25W	1	
R726	ERDS2TJ333		Carbon, 33k ohms 0.25W	1	
R727	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	
R728, 729	ERDS1FJ681		Carbon, 680 ohms 0.5W	2	
R736	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	
R737	ERDS2TJ102		Carbon, 1k ohms 0.25W	1	
R738	ERDS1FJ330		Carbon, 33 ohms 0.5W	1	
R739	ERDS2TJ562		Carbon, 5.6k ohms 0.25W	1	
R740	ERD25TJ103		Carbon, 10k ohms 0.25W	1	
Z700	ERZC07DK470		ZNR	1	

[E-8184] **DISPLAY BLOCK**

R901 to 904	ERJ6GEYJ102		Chip, 1k ohms 0.1W	4	
R905	ERJ6GEYJ103		Chip, 10k ohms 0.1W	1	
R907	ERJ6GEYJ561		Chip, 560 ohms 0.1W	1	
R915	ERJ6GEYJ473		Chip, 47k ohms 0.1W	1	
R917	ERJ6GEYJ4R7		Chip, 4.7 ohms 0.1W	1	
R993	ERJ6GEYJ102		Chip, 1k ohms 0.1W	1	

[E-8195] **TAPE BLOCK**

R201, 202	ERJ6GEYJ823		Chip, 82k ohms 0.1W	2	
R203	ERJ6GEYJ334		Chip, 330k ohms 0.1W	1	
R204	ERJ6GEYJ181		Chip, 180 ohms 0.1W	1	
R205	ERJ6GEYJ123		Chip, 12k ohms 0.1W	1	

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
R206	ERJ6GEYJ183		Chip, 18k ohms 0.1W	1	
R207, 208	ERJ6GEYJ562		Chip, 5.6k ohms 0.1W	2	
R301, 302	ERJ6GEYJ823		Chip, 82k ohms 0.1W	2	
R303	ERJ6GEYJ334		Chip, 330k ohms 0.1W	1	
R304	ERJ6GEYJ181		Chip, 180 ohms 0.1W	1	
R305	ERJ6GEYJ123		Chip, 12k ohms 0.1W	1	
R306	ERJ6GEYJ183		Chip, 18k ohms 0.1W	1	
R307, 308	ERJ6GEYJ562		Chip, 5.6k ohms 0.1W	2	
R501, 502	ERDS2TJ223		Carbon, 22k ohms 0.25W	2	
R504	ERD25TJ561		Carbon, 560 ohms 0.25W	1	
R505	ERDS2TJ101		Carbon, 100 ohms 0.25W	1	
R506	ERD25TJ823		Carbon, 82k ohms 0.25W	1	
R507	ERDS2TJ120		Carbon, 12 ohms 0.25W	1	
R508	ERDS2TJ223		Carbon, 22k ohms 0.25W	1	
R510	ERDS2TJ102		Carbon, 1k ohms 0.25W	1	
R511	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	
R512	ERDS2TJ102		Carbon, 1k ohms 0.25W	1	
R513	ERDS2TJ473		Carbon, 47k ohms 0.25W	1	
R514, 515	ERDS2TJ102		Carbon, 1k ohms 0.25W	2	
R801	ERJ6GEYJ153		Chip, 15k ohms 0.1W	1	
R802	ERJ6GEYJ183		Chip, 18k ohms 0.1W	1	
R803	ERJ6GEYJ272		Chip, 2.7k ohms 0.1W	1	
R804	ERJ6GEYJ184		Chip, 180k ohms 0.1W	1	

CONNECTORs

MAIN BLOCK

[E-2553A]

CN200	YEAE02165		Connector, 2P RCA	1	
CN250	YEAE012503		Connector, 4P	1	R525EUC ONLY
CN601	YEAE012475		Connector, 12P	1	
CN602	YEAE0106TUCP		Connector, 6P	1	R525EUC ONLY
CN680	YEAE012307		Connector, 8P DIN	1	R525EUC ONLY
CN701	YEAE012194		Connector, 16P	1	
CP360	YEAE02186		Connector, 5P	1	
CP501	YEAE5280714		Connector, 14P	1	
CP602	YEAE0106TUCX		Connector, 6P	1	R525EUC ONLY
CP604	YEAE5280712		Connector, 12P	1	

DISPLAY BLOCK

[E-8184]

CP601	YEAE012476		Connector, 12P	1	

TAPE BLOCK

[E-8195]

CN501	YEAE5280714		Connector, 14P	1	
CN502	YEAE9604L10S		Connector, 10P	1	
CN604	YEAE5280612		Connector, 12P	1	
CN801	YEAE9604L05S		Connector, 5P	1	
CN802	YEAE5325408		Connector, 8P	1	

SWITCHEs

SW901	EVQPJH05K		Switch	1	
SW902 to 904	YEAS09287		Switch	3	
SW906, 907	EVQPJH05K		Switch	2	
SW908	YEAS09287		Switch	1	
SW909, 911	EVQPJH05K		Switch	2	
SW912 to 914	EVQPJH05K		Switch	3	
SW916 to 918	EVQPJH05K		Switch	3	
SW919	YEAS09287		Switch	1	
SW921	EVQPJH05K		Switch	1	R525EUC ONLY
SW922	YEAS09287		Switch	1	
SW923, 924	YEAS09287		Switch	2	R525EUC ONLY
SW926, 929	EVQPJH05K		Switch	2	

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
COILs					
L101	YELT02C330KT		Coil	1	
L601	YELT02C101KT		Coil	1	
L603, 604	YELT02C101KT		Coil	2	
L700	YETQ026F143		Coil	1	
CRYSTAL					
XL601	YGXL49U0450T		Crystal OSC	1	
LCD					
LCD901	YEXDCM1173		LCD	1	
PRINTING					
	YEFM282468		Operating Instructions	1	
INSTALLATION PARTS					
1	YEFX0213629A		Mounting Collar	1	
2 to 4, 6 to 8	YEP9FZ2478		Screw Kit	1	
5	YEFG04019		Rear Support Strap	1	
9	YGAJ02719		Power Connector	1	
10	YEFA131202		Removable Face Plate Case	1	R525EUC only
MISCELLANEOUS					
F1 ⚠	XBB1F100NS5		Fuse, 10A	1	
ANT1 (2-A)	YEAA10060		Antenna Receptacle	1	
AT1 to 3	YEAT03420		Terminal	3	

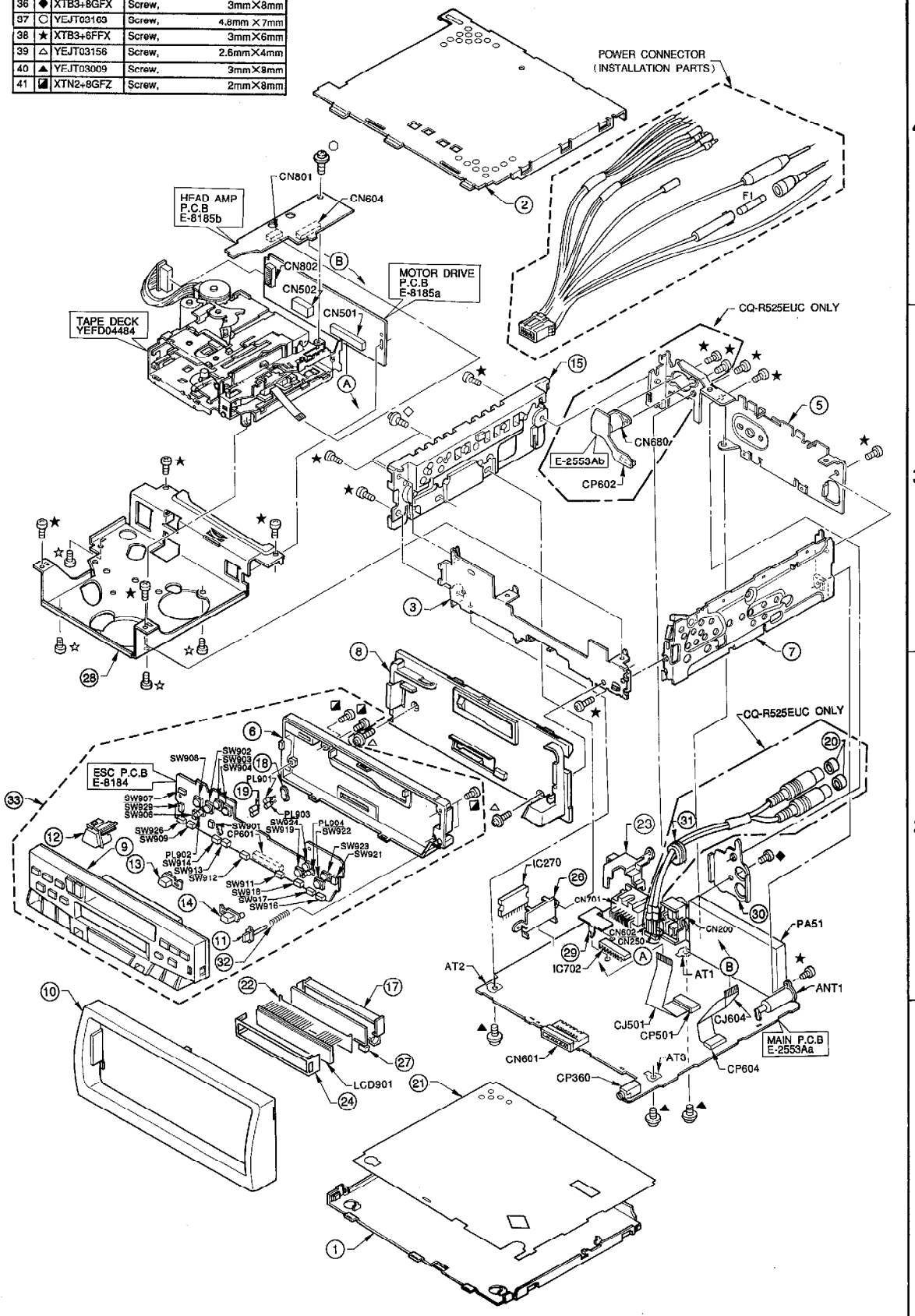
Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
CJ501 (1-C)	YEAES14B120B		Connector,	14P	1
CJ604 (1-C)	YEAES12B075A		Connector,	12P	1
PL901 (2-A)	YEAL01202		Pilot Lamp	1	
PL902 (2-A)	YEAL01211		Pilot Lamp	1	
PL903 (2-A)	YEAL01202		Pilot Lamp	1	
PL904 (2-B)	YEAL01211		Pilot Lamp	1	
Z51	YEAL02007T		Neon Lamp	1	
1 (1-B)	YEFA05594B		Bottom Cover	1	
2 (4-B)	YEFA031354B		Upper Cover	1	
3 (3-B)	YEFA07363		Front Plate	1	
5 (3-C)	YEFA08404BK		Rear Plate	1	R525EUC only
5 (3-C)	YEFA08402BK		Rear Plate	1	R520EUC only
6 (2-A)	YEFA131196		Cover, Detachable	1	
7 (2-C)	YEFA09508		Side Plate	1	
8 (2-B)	YEFC024913		Escutcheon Ass'y, Unit	1	R525EUC only
8 (2-B)	YEFC024915		Escutcheon Ass'y, Unit	1	R520EUC only
9 (2-A)	YEFC024771		Escutcheon Assy, Detachable	1	R525EUC only
9 (2-A)	YEFC024875		Escutcheon Assy, Detachable	1	R520EUC only
10 (2-A)	YEFC05545		Trim Plate	1	
11 (2-A)	YEFE134202		Button, RLSE	1	
12 (2-A)	YEFE134236		Button, PWR	1	
13 (2-A)	YEFE134432		Button, ATT	1	
14 (2-A)	YEFE134431		Button, SEL	1	
15 (3-B)	YEFF01829		Heat Sink	1	
17 (2-B)	YEFK06708		Holder	1	
18 (2-A)	YEFK04542		Holder	1	
19 (2-A)	YEFR04140		Illumination Cap	2	
20 (2-C)	YEFR04187		RCA Connector Cap	2	R525EUC only
21 (2-A)	YEFV011709		Insulator	1	
22 (2-A)	YEFV021352		Optical Shade	1	
23 (2-C)	YEFX0213649A		Bracket	1	
24 (2-A)	YEFX0213956		Bracket	1	
26 (2-B)	YEFX0213945		Bracket	1	
27 (1-B)	YEFX0011651		Transparent Plate	1	

EXPLODED VIEW (UNIT)

■ Numbers in ○ are indicated REF.No. in the REPLACEMENT PARTS LIST

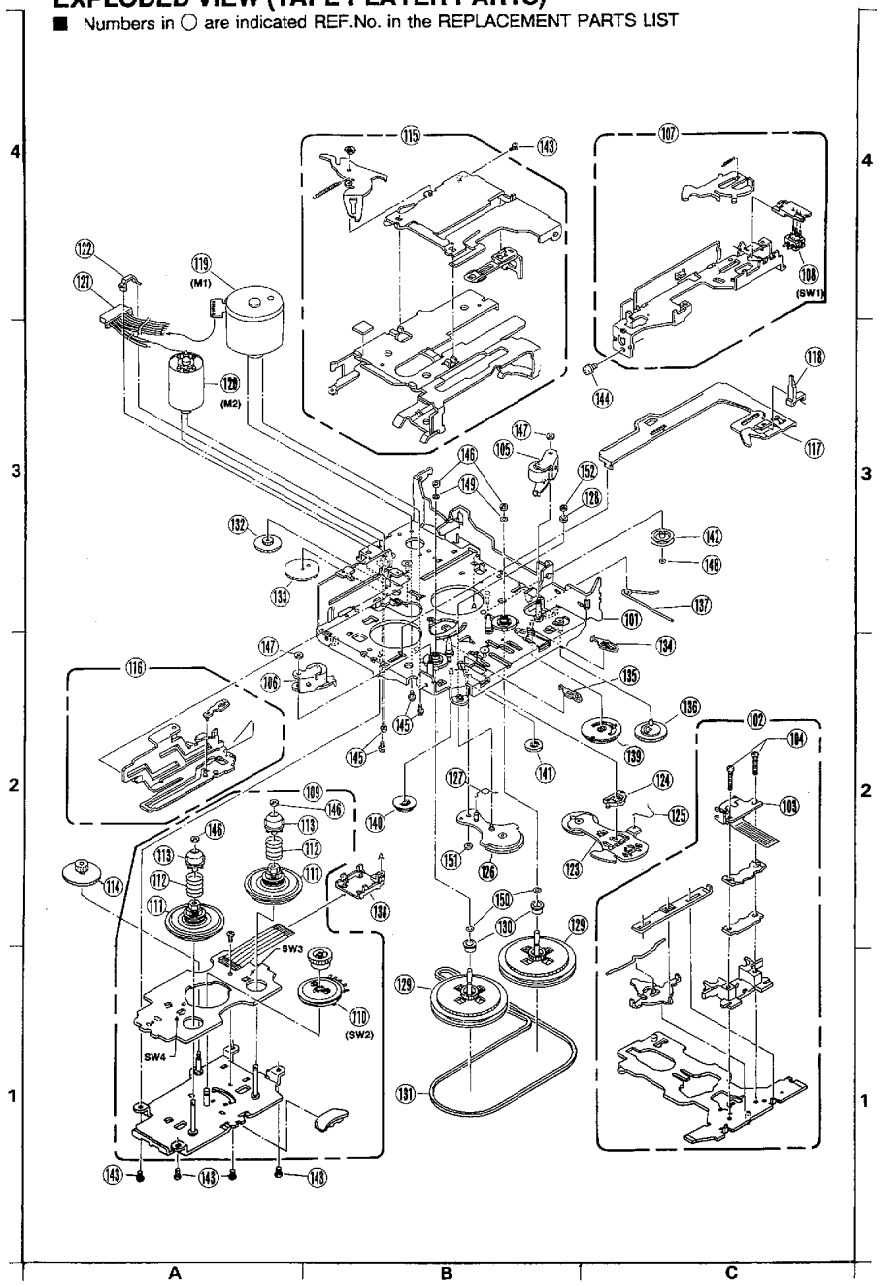
■The symbols next to the screws indicate as follows.

34	◇	YEJS06092	Screw,	3mm×10mm
35	☆	YEJS06027	Screw,	3mm×4mm
36	◆	XTB3+8GFX	Screw,	3mm×8mm
37	○	YEJT03163	Screw,	4.8mm×7mm
38	★	XTB3+6FFX	Screw,	3mm×6mm
39	△	YEJT03156	Screw,	2.6mm×4mm
40	▲	YEJT03009	Screw,	9mm×9mm
41	◪	XTN2+8GFZ	Screw,	2mm×8mm



EXPLODED VIEW (TAPE PLAYER PARTS)

■ Numbers in ○ are indicated REF.No. in the REPLACEMENT PARTS LIST



MODELS CQ-R525EUC / R520EUC

TAPE PLAYER PARTS

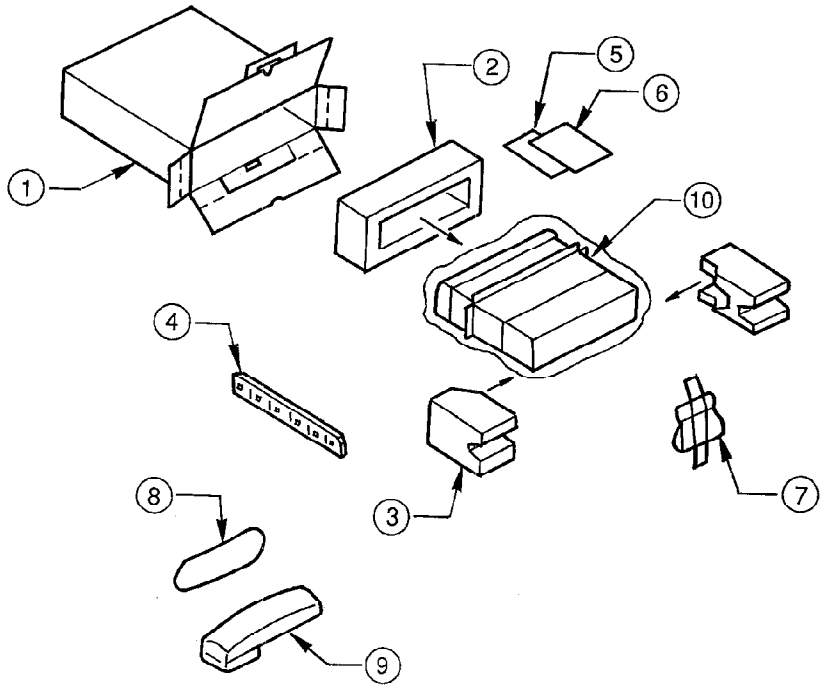
484 [9612,25]

Ref. No.		Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
101	(3-C)	YESFA01047		Main Chassis Ass'y	1	
102	(2-C)	YESFX0046039		Head Chassis Ass'y	1	
103	(2-C)	YESAH004		Playback Head	1	
104	(2-C)	YESJS01070		Screw, Azimuth Alignment	2	
105	(3-B)	YESFX249013		Pinch Roller (F) Ass'y	1	
106	(2-A)	YCGFX249014		Pinch Roller (R) Ass'y	1	
107	(4-C)	YESFX021092		P Bracket Ass'y	1	
108	(4-C)	YESAS092		Push Switch	1	
109	(2-B)	YESFX046030		Drive Chassis Ass'y	1	
110	(1-B)	YESAS093		Mode Select Switch	1	
111	(2-A)	YESFX209006		Reel Ass'y	2	
112	(2-A)	YESFX005057		Spring for Reel	2	
113	(2-A)	YESFR04007		Cap for Reel	2	
114	(2-A)	YESFX003028		Gear (D)	1	
115	(4-B)	YESFX239004		Cassette Holder Ass'y	1	
116	(2-A)	YESFX046031		Load Rack Gear Ass'y	1	
117	(3-C)	YESFX046032		Main Plate	1	
118	(3-C)	YESFX046033		PD Actuator	1	
119	(4-A)	YESAK01090		Main Motor Ass'y	1	
120	(3-A)	YESAK01091		Sub Motor Ass'y	1	
121	(4-A)	YESAE259		Connector (8P) Ass'y	1	
122	(4-A)	YESFX007015		Cord Clamper	1	
123	(2-B)	YESFX046034		FR Plate Ass'y	1	
124	(2-C)	YESFX239005		FR Plate Guide	1	
125	(2-C)	YESFX005056		I-H Plate Spring	1	
126	(2-B)	YESFX046035		PG Plate Ass'y	1	
127	(2-B)	YESFX005059		PG Plate Spring	1	
128	(3-C)	YESFX218010		PG Guide Roller	1	
129	(1-B,2-B)	YESFX213003		Flywheel Ass'y	2	
130	(2-B)	YESFX003029		Flection Gear	2	
131	(1-B)	YESFR03002		Main Belt	1	
132	(3-A)	YESFX003030		Gear (B)	1	

Ref. No.		Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
28	(2-A)	YEFX0213955		Bracket	1	
29	(2-B)	YEFX0214011		Bracket	1	
30	(2-C)	YEFX0213673		Bracket	1	
31	(2-C)	YEFX007380		Cord Clamper	1	R525EUC only
32	(2-A)	YEFX0052003		Spring	1	
33	(2-A)	YEPDFX2769		Detachable Unit Ass'y	1	
34	◇	YEJS06092		Screw, 3mm × 10mm	2	
35	☆	YEJS00027		Screw, 3mm × 4mm	4	
36	◆	XTB3+8GFX		Screw, 3mm × 8mm	1	
37	○	YEJT03163		Screw, 4.8mm × 7mm	1	
38	★	XTB3+6FFX		Screw, 3mm × 6mm	14	R525EUC only
38	★	XTB3+6FFX		Screw, 3mm × 6mm	12	R520EUC only
39	△	YEJT03156		Screw, 2.6mm × 4mm	2	
40	▲	YEJT03009		Screw, 3mm × 8mm	3	
41	◪	XTN2+8GFZ		Screw, 2mm × 8mm	4	

Ref. No.	Parts No.	Part Code	Parts Name & Description	Psc set	Remarks
133 (3-A)	YESFX003031		Gear (C)	1	
134 (2-C)	YESFX046036		TG Control Plate (P)	1	
135 (2-C)	YESFX046037		TG Control Plate (F)	1	
136 (2-C)	YESFX003032		Reverse Gear	1	
137 (3-C)	YESFX005060		PG Spring	1	
138 (2-B)	YESFX007016		Cord Clamper	1	
139 (2-C)	YESFX003033		TG Gear (P)	1	
140 (2-B)	YESFX003034		TG Gear (F)	1	
141 (2-B)	YESFX003035		Settle Gear	1	
142 (3-C)	YESFX026013		Center Pully	1	
143	YEJT03118		Screw, 2mmX3mm	5	
144 (3-C)	YEJS06131		Screw, 2.6mmX4mm	1	
145 (2-B)	YEJS06130		Screw, 2mmX3mm	4	
146 (2-A,3-B)	YESJW01012		Polyslider 1.55mm	4	
147 (3-B)	YEFX014052		Polyslider 1.6mm	2	
148 (3-C)	YEJW05130		Polyslider 0.85mm	1	
149 (3-B)	YESJW01013		Polyslider 2.1mm	2	
150 (2-B)	YESJW01014		Polyslider 2.1mm	2	
151 (2-B)	YESJW01015		Polyslider 1.6mm	1	
152 (3-C)	YESJW01016		Polyslider 0.8mm	1	

PACKING PARTS LIST



- *Item numbers listed below should not order regular spare parts.* ***(not available)***

Item No.	Parts No.	Parts Name & Description	Q'ty	Remarks
1	YEP9PC6357 (CQ-R525EUC)	Inner Carton	1	Not available
2	YEP9PC6358	Packing Pad, Front	1	Not available
3	(CQ-R520EUC)	Packing Pad , R and L	1	Not available
4	YEFG04019	Rear Support Strap	1	
5	YEP9PR2814	Printing Kit for Canada	1	Not available
6	YEP9PR3019	Instruction Book Kit	1	Not available
	YEFM282468	Instruction Book	(1)	
	YEFM07112D	Warranty Card for USA	(1)	Not available
		Service Center List	(1)	Not available
7	YEP9FZ2478	Screw Kit	1	Not available
	XVG5C25FX	Bolt, Hex 5mmX25mm	(1)	
	YEJV01060	Bolt, Hex 5mmX8mm	(1)	
	XNG5AFX	Nut, Hex 5mm	(2)	
	XWA5BFX	Washer 5mm	(2)	
	XWC5CFX	Washer 5mm	(1)	
	XWG5FX	Washer 5mm	(2)	
8	YGAJ02719	Power Cord Ass'y	1	
9	YEFA131202	Removable Face Plate Case	1	R525EUC only
10	YEFX0213629A	Mounting Collar	1	

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